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ABSTRACT

This literature review focuses on the role of schools' "common properties" in planned educational change and everyday school operations. Common properties include those features that are either present in all schools, relatively stable and unchanging, or central to the concept of schools today. The author first examines five ways in which common school properties have been identified and investigated, including objective observation, speculative analysis, comparative analysis, typological classification, and empirical research. He then analyzes the relationship between schools' common properties and schools' solutions to their "dilemmas," or choices, of operation and change. Based on this analysis, his review of the literature yields 37 common properties, grouped under nine different dilemmas, as well as a list of the properties' possible causes or antecedents. The 37 properties touch on such areas as school goals; attitudes toward students; governance of students and teachers; relationships with parents, the community, and all levels of government; the outcomes of education; relationships to educational research and theory; patterns of school power and influence; and reaction to innovation. A final section suggests many areas for further research on common properties. (RW)

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# COMMON PROPERTIES OF SCHOOLS IN CONTEXT:

# THE BACKDROP FOR KNOWLEDGE UTILIZATION AND "SCHOOL IMPROVEMENT"

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# COMMON PROPERTIES OF SCHOOLS IN CONTEXT:

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## Introduction

"If you want to alter a social system, you'll get much further if you have a good map of it." Who could argue with such a dictum? It has that hollow, trite ring of truth that usually leads us to place our attention elsewhere. But the fact is that maps are important, not only for planning trips, but for guiding the journey, helping one out of confusion, and reviewing the whole experience afterward.

This paper invites those who try to understand, support or manage processes labeled "school improvement" to reflect on the maps they are using. In particular, just what sort of an enterprise is a school? One's views on that will probably make a good deal of difference in one's approach to school-improvement research and practice.

The paper focuses on the common properties shared by elementary and secondary schools in the American context. There are several senses in which such properties can be seen as "common": (1) that they are present in all schools, are "universals"--or are at least "typical," "standard"; (2) that they are relatively stable and vary only slowly (or not at all) over time; (3) or (more inferentially) that they are somehow inherent, focal or central to the very idea of a school as we know it in America today. These three senses of "common" are certainly not mutually exclusive, and the

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discussion will not try to differentiate among them as it proceeds.

Illustrative Common Properties of Schools

To exemplify what various writers have meant by "common property", here are some samples adapted from Fullan, Miles & Taylor (1978):

> Goal diffuseness: the organization's mission is usually abstractly stated, with output measurement a difficult matter (Miles, 1967; Miles & Schmuck, 1971), partly because of the long time-line involved.
>
> Sub-optimal technical capability: the knowledge base underlying educational practice is relatively weak, and/or not well diffused to practitioners (Sieber, 1968).
>
> Coordination problems: schools and school districts tend to be low-interdependent, "loosely-coupled" systems (Bidwell, 1965; Weick, 1976) where goals do not connect well with means, and where accountability is low and autonomy high.
>
> Boundary management problems: from the inside, the skin of the organization seems unbearably thin, over-permeable to dissatisfied stakeholders; from the outside, the barriers to citizen influence seem tough and elastic.
>
> Domestication: schools are owned by their environment, and are non-competitive with other schools for resources (Carlson, 1965). Survival is guaranteed, more or less, and the incentives for innovation are feeble (Pincus, 1974).
>
> Location in a constrained, decentralized suprasystem: though each of 16,000 U.S. school districts and 89,000 buildings is nominally autonomous, there are many national constraints exerted by standardized testing, a national textbook market, various accreditation and certification requirements, and a variety of legislation (Miles, 1978).

While these common properties have been asserted by a range of writers, there is no very clear way to assess their plausibility or truth value. This paper examines the evidence available on the nature and existence of various common properties of schools, as a way of summarizing and assessing the various claims made in this domain. The approach will be leisurely and reflective, with ideas drawn from a wide range of domains. The intent is to cause thought about an "obvious" question: what are the essential features of schools?

Importance of the Topic

There are several theoretical and practical reasons for attending to schools' common properties. First, anyone researching or managing a deliberate change process in schools is well advised to be clear about what might be called their "deep structure"--- to note that the common features of schools point to a series of meta-issues underlying the day-to-day events and processes of "school as usual". Without such clarity, it is easy for researchers to choose variables that are trivial, to propose explanations that do not explain, or to inattend entirely to whole classes of phenomena which are affecting change efforts. Unclarity for those funding knowledge utilization and "school improvement"[1] programs is likely to lead to mistaken priorities and misconceived

---

[1] The quotation marks here and in the title are intended to "bracket" the school improvement label, and to indicate its problematic nature. The main difficulties with the label are that (1) it lumps and confuses change policies, change efforts (projects), and even specific changes (particular technologies, products, etc.); (2) it obscures the fact that different stakeholders in and around the school may have very different ideas about what constitutes "improvement"; (3) it leaves ambiguous the status of certain changes which are not necessarily "improvements", such as school closings, fiscal austerity, or even mandated changes such as desegregation, mainstreaming of handicapped students, minimum competency testing, etc.; (4) it ignores the idea that "school improvement" programs may in fact be designed, participated in, and carried out for reasons which have little to do with school improvement (e.g., career advancement, financial benefit, cooptation of opposition). When the label is used, with or without quotes, in the following discussion, the reader is advised to maintain some detachment and wariness. For practical purposes, "school improvement" alludes in this paper to an intent (or actual effort) to alter a school toward some state of affairs someone thinks is "better". (Whether or not others think so, or whether the effort is successful, is beside the point.)

design. And ignorance about common properties of schools can lead change agents and change managers into superficial strategies and tactics, or into extended complaints about the supposed obduracy of their clients and subordinates.

Second, a focus on common properties can do more than ward off failure: it can enhance, heighten our understanding as well. It may be possible to see how such properties constrain and limit change efforts, as well as how they provide active driving and restraining forces. Primary "leverage points" for change efforts may be identifiable.

Third, though common properties are definitionally specified as shared by all schools, they are certainly not all-determinative. Schools show a very wide range on "variable" properties ranging from dollar expenditure to role differentiation, the principal's leadership style, community supportiveness, and classroom climate. A focus on common properties may help researchers, funders and school improvers see which variable properties are more important and why -- and how much range of variation to expect.

## Approaches to Understanding Common Properties

There are several possible avenues of inquiry on common properties of schools: "naive observation"; stipulative/speculative analysis; comparative analysis; typological classification; and empirical research.

### "Naive Observation"

Sarason (1971) suggests a thought-experiment: one should imagine oneself as a being from outer space hovering over the American landscape, by chance focusing on a bounded place which Americans label a "school".

With this perspective, certain common features, many of them deeply taken for granted, might appear to the observer:

> At some times of the day, and some times of week and year, the "school" is filled with people, and at other times it is empty.
> There are few large people, and many small people. The large people are rarely found talking with other large people.
> Larger people speak much more frequently than smaller people.

This sort of analysis is useful in locating programmatic and behavioral regularities, detached from the associated justificatory value positions. For example, one can note the temporal and spatial segregation of learners from society, batch processing, adult-child role and influence differentiation, teacher isolation and autonomy, the role of time schedules, etc. as observed regularities in schools. But such analysis has its limits. Most acutely, it is short on meanings. As Deutsch (1979) suggests:

> If these outsiders are not also insiders enough to understand the culture, they will select irrelevant variables, or will not be able to identify the quality or nature of the relationships between variables. The Martian will not make a good social critic until it enmeshes itself sufficiently in the earthly culture to understand it.

Of course, we are not extra-terrestrial visitors, and import and impute meanings abundantly. The main value of the exercise lies in providing detachment, encouraging the fish to contemplate the water in which it swims and, as Sarason suggests, to derive significance from the unspecified, missing "universe of alternatives" (what if schools were open 24 hours a day? what if the average student spoke as much as the average teacher?). The "naive observer" mode, in fact, almost immediately conveys the thinker into a stipulative/speculative mode, perhaps with some heightened awareness.

Stipulative/Speculative Analysis

Another (the most frequent) approach to understanding schools' common

properties postulates generic or typical properties of schools, and speculates about their antecedents, interrelations, and consequences, with little reference to empirical data. Many such analyses have appeared. To illustrate, here are several, displayed in schematic format to show the nature of the interrelations proposed in the authors' verbal expositions.

Willower (1970), a long-time researcher in educational administration, for example, proposes something like the following set of basic properties (Figure 1): vulnerability, goal vagueness, weak technology, and compulsory attendance. Other variables follow from these, leading to certain dependent variables: schools are seen as adopting "ornamental" innovations, as having a strong control orientation, and as composed of separate teacher and student subcultures.

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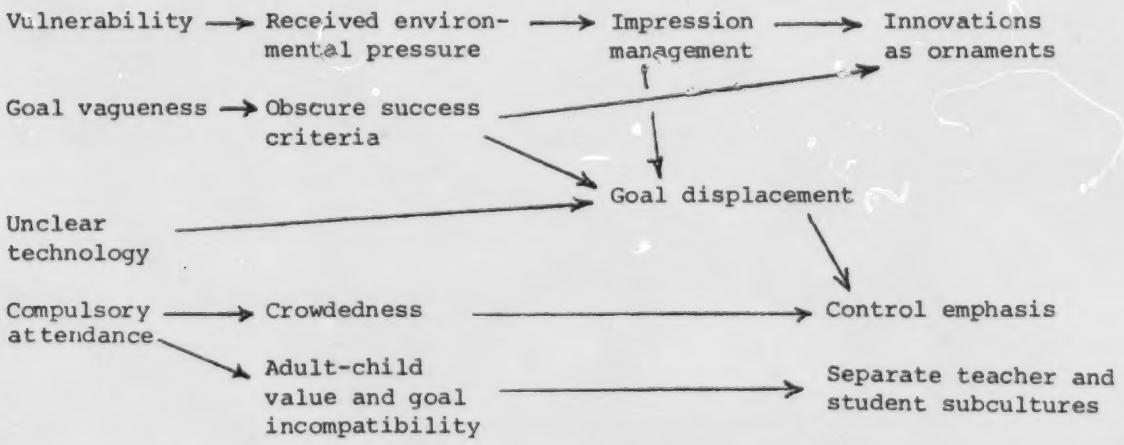
FIGURE 1

COMMON PROPERTIES OF SCHOOLS (INFERRED FROM WILLOWER, 1970)

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Willower's text could undoubtedly be displayed in other ways, but the general line of argument is as noted. In a later discussion (Willower, 1973), additional dependent variables such as "routinization," and "universalistic processing of clientele" are hypothesized to result from the need to reduce uncertainty and risk.

Basically, the "start features" of the scheme (such as goal vagueness) are asserted to be "generic" or core aspects of schools, or to be historically-derived universals (such as compulsory attendance). The analyst then proceeds to derive logical consequences, culminating in dependent variables. The choice of intervening and dependent variables stems in part from theoretical predilections, probably in part from one's own observation of what "school" felt like when one was in it, and in part from preceding empirical data (e.g., in this case, Waller's (1932) work on teacher and student cultures).

Another analysis is that supplied by Elboim-Dror (1970), from a policy-sciences perspective. The discussion is thorough and complex: for the most part, only variables outlined in the summary (p. 249) are included in Figure 2.[2] Some "basic" variables seen in the Willower formulation are missing (e.g., compulsory attendance), and new dependent variables appear (e.g., teacher discretion, environmental controls, and conservatism (not only decorative use of innovation). Once again, predilections and implicit frames can be seen to be operative. Though the author provides some empirical documentation for the assertions made, the dominant level of discourse is stipulative. For example, as with Willower, goal intangibility

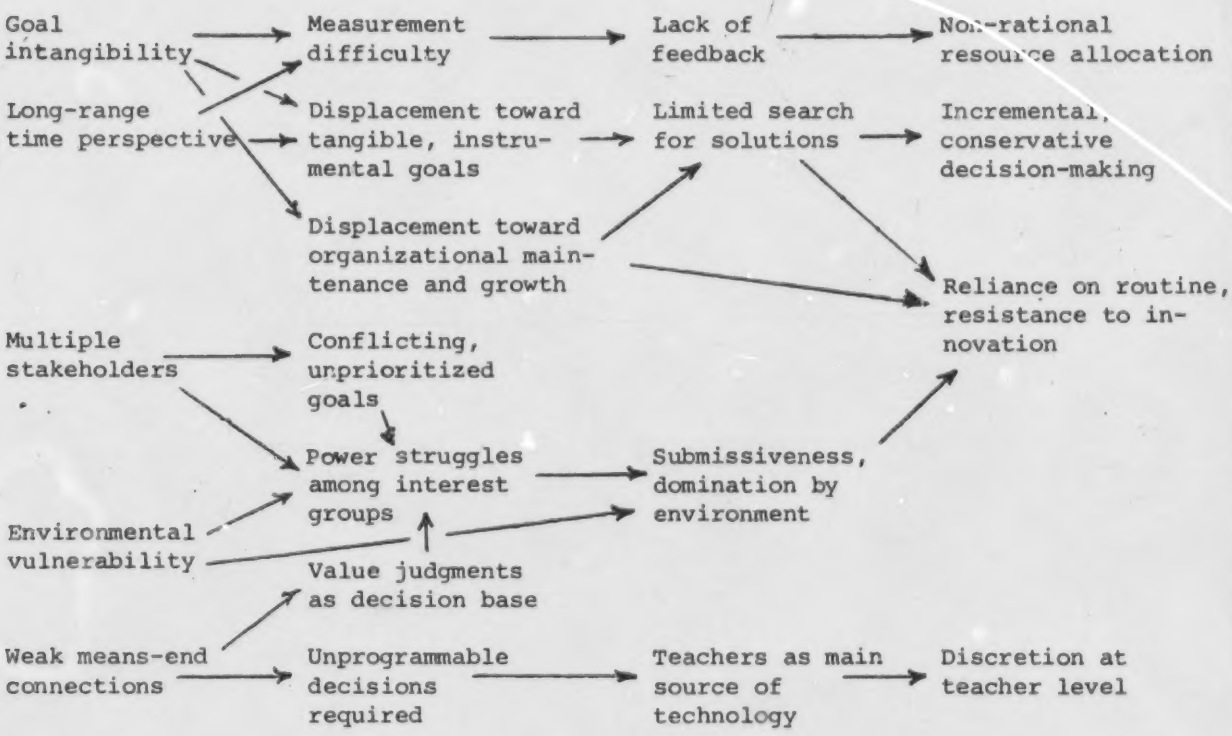
---

[2] As in many such analyses, the tone emphasizes stability in educational systems, and is implicitly negative. Elboim-Dror does discuss positive values of goal intangibility (ex: latitude for compromise, increased autonomy, increased commitment, etc.) but these features drop out in her summary.

is asserted; no data are offered that would bear on the degree to which the assertion is justified.

FIGURE 2

COMMON PROPERTIES OF SCHOOLS (INFERRED FROM ELBOIM-DROR, 1970)



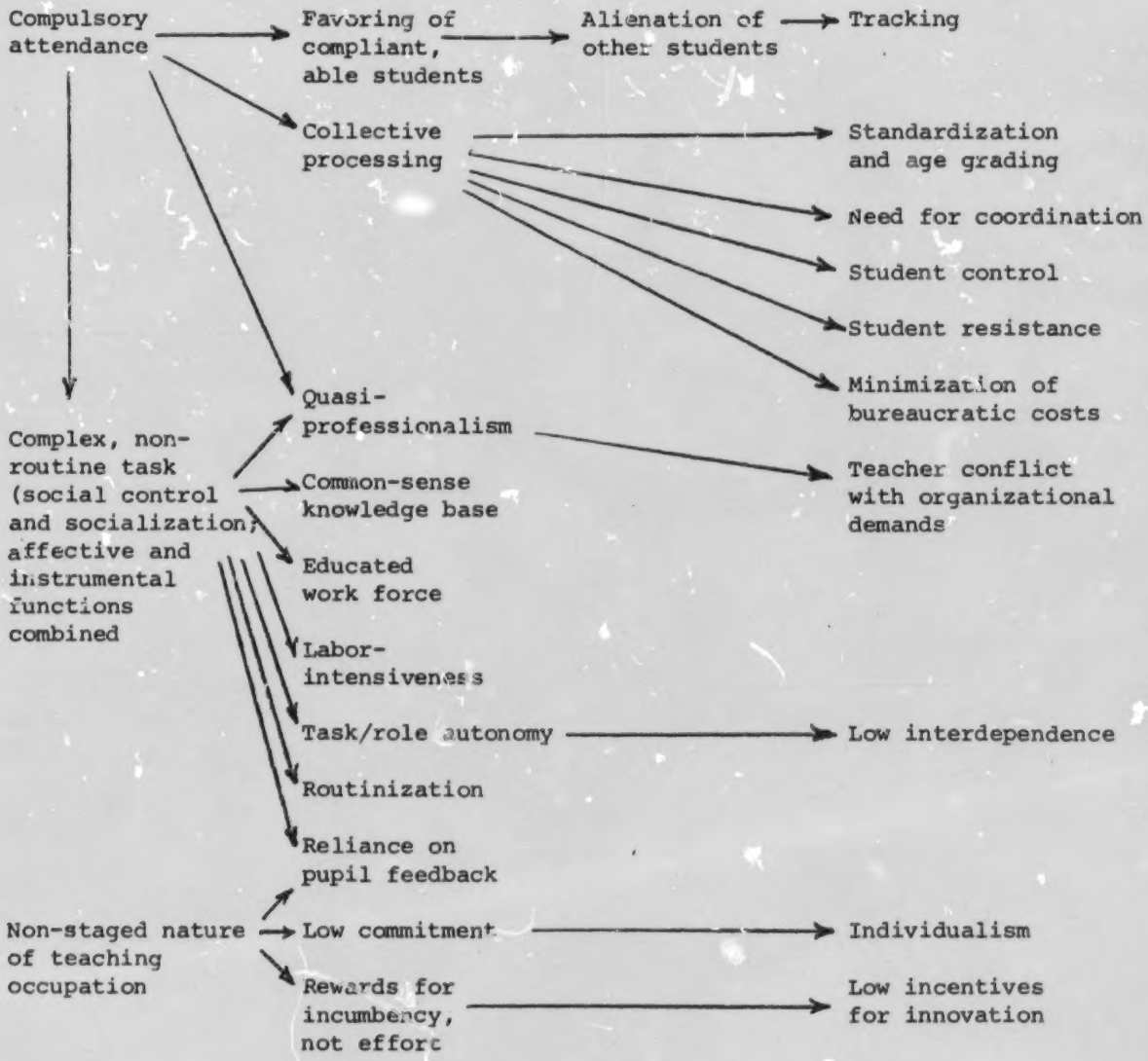

Still another view is offered by Sieber (1980), from a sociological (largely structural/functional) perspective. He suggests that

> incentives for knowledge utilization....arise from the functional needs of the system, which in turn stem from the organizational and occupational structures of education and the technology entailed in the training and socialization of reluctant youths. (p. 153)

In Figure 3 we see that the basic features of schools are identified as (1) compulsory attendance, generating a series of organization-level demands,

FIGURE 3

COMMON PROPERTIES OF SCHOOLS (INFERRED FROM SIEBER, 1980)




and (2) the complex, non-routine nature of teaching as a core task, generating the need for autonomy. Both "overarching" features are said to generate "quasi-professionalism," and to bring individual operatives into conflict with organizational demands. Finally, the "non-staged" nature of teacher careers,

like task complexity, promotes reliance on pupil feedback, low commitment, and individualism. The general picture is one of strains between forces for regularity and predictability, and "counterforces" leading to low interdependence and autonomy ("loose coupling").

Though Sieber's analysis, like the preceding ones, is internally clear and consistent, we can note (1) that the choice of "start" variables is somewhat arbitrary[3]; (2) that a number of plausible causal linkages are left unspecified (e.g., teacher conflict with organizational demands is probably driven to some degree by task/role autonomy, presence of an educated work force, etc.; (3) that the range of dependent variables noted is quite wide, and certainly not co-terminous with the other analyses displayed earlier.[4]

Meyer & Rowan (1977), as organization theorists with a "loose coupling" bent, suggest a general scheme for organization-environment relations (the display in Figure 4a combines their figures 2 and 3). They argue that

> Organizations that incorporate socially legitimated rationalized elements in their formal structures maximize their legitimacy and increase their resources and survival capabilities. (p. 352)

They also assert that organizational efficiency aids legitimacy and resource gaining, and that an organization's "institutional isomorphism" with its surroundings induces internal "decoupling," avoidance of inspection of core processes, and the development of a "logic of confidence" (good faith) as a substitute.

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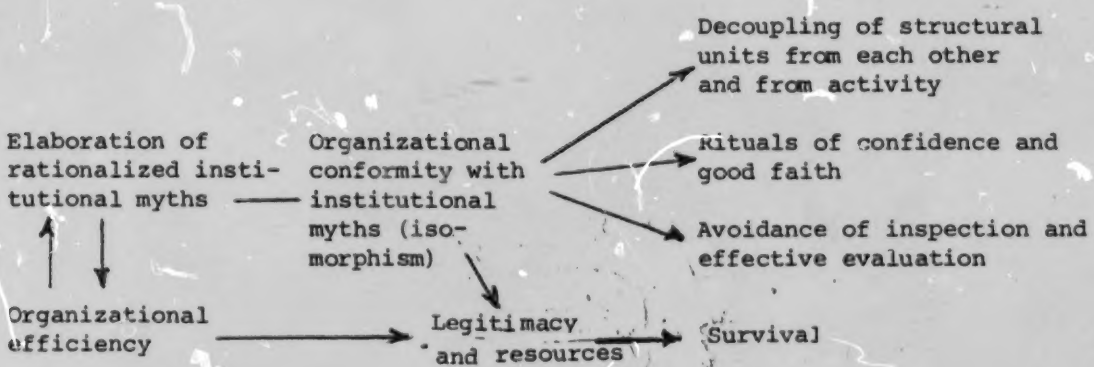
[3]We should note that Sieber's text does cite "vulnerability" as a start variable, so there is some similarity across his, Willower's and Elboim-Dror's analyses, which stem from three different disciplines.

[4]This feature is undoubtedly a function of what the analyst is interested in. Hawley (1975), using many variables also present in these three analyses, comes out with the major dependent variable identified as "organizational rigidity," a feature we can infer as present in Elboim-Dror's network, but hardly at all in Sieber's and Willower's.

FIGURE 4a

ORGANIZATION-ENVIRONMENT RELATIONS (MEYER & ROWAN, 1977)

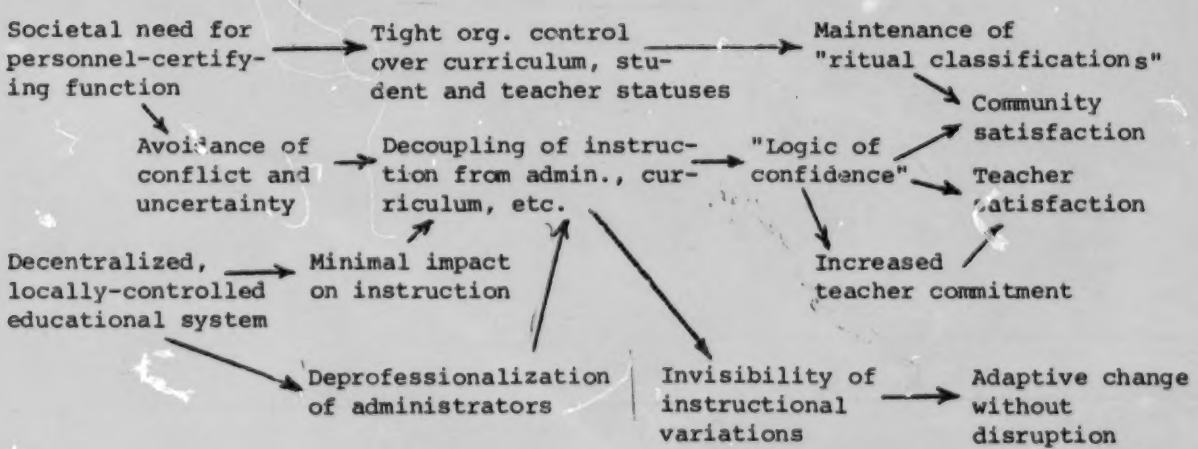

Decoupling of structural units from each other and from activity
Elaboration of rationalized institutional myths
Organizational conformity with institutional myths (isomorphism)
Rituals of confidence and good faith
Avoidance of inspection and effective evaluation
Organizational efficiency
Legitimacy and resources
Survival

Meyer & Rowan (1978) apply this general scheme to the special case of schools.

The relationships suggested in their verbal analysis appear in Figure 4b.

FIGURE 4b

COMMON PROPERTIES OF SCHOOLS (INFERRED FROM MEYER & ROWAN, 1978)

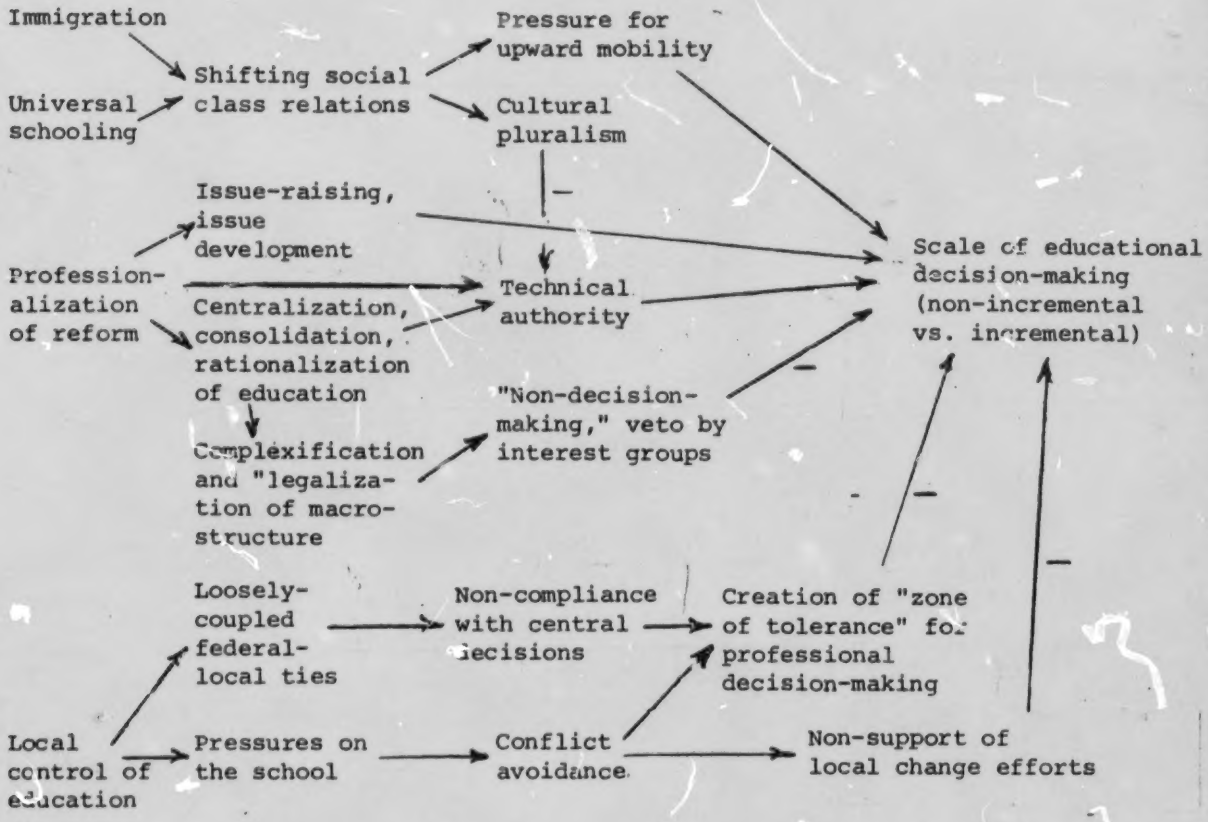

Societal need for personnel-certifying function
Tight org. control over curriculum, student and teacher statuses
Maintenance of "ritual classifications"
Community satisfaction
Avoidance of conflict and uncertainty
Decoupling of instruction from admin., curriculum, etc.
"Logic of confidence"
Teacher satisfaction
Decentralized, locally-controlled educational system
Minimal impact on instruction
Increased teacher commitment
Deprofessionalization of administrators
Invisibility of instructional variations
Adaptive change without disruption

The authors conceive the school as essentially a sorting mechanism for society, and claim that the aspects of schools which bear on this function are rigidly maintained, resulting in satisfaction of external constituencies. However, both the decentralized structure of American education and the need to avoid conflict and uncertainty are seen as promoting the decoupling of actual instruction from administrative and curricular aspects of schools. In this view, only the "ritual classification" aspects of schools are rigid, and there is plenty of room for adaptive change at the instructional level, so long as it does not disrupt external relations. Once again, we can note the relative absence of empirical data: just how "rigid" are schools anyway? It can also be pointed out that the "start" variables chosen, once again, depend on predilection: Meyer and Rowan choose school-exogenous variables (society's needs, decentralized educational structure) and ignore endogenous ones (task complexity, goal vagueness, etc.) which other authors believe are inherent or intrinsic to schools as such.

As one more illustration, here is an outline of some aspects of schools discussed by Boyd (1978) from a historical/political perspective. The article is lengthy and discursive, and Figure 5 extracts only some of the relationships proposed. Boyd notes that shifting social class relations (such as those created by the need to absorb large amounts of immigrant labor, or to cope with the influx of poor people to cities in the 50's and 60's) have led in America to what he labels "non-incremental" (substantial, innovative) curriculum policy-making. So does the "professionalization of reform," which involves the growth of an establishment (largely in foundations, the Federal government and universities) which has a vested interest in innovation and change.

FIGURE 5

COMMON PROPERTIES OF SCHOOLS (INFERRED FROM BOYD, 1978)




(— signifies negative relation between variables)

Ironically, as Boyd points out, the very centralization, consolidation and rationalization of education which was central to the massive educational reforms of the first few decades of this century has made current reforms far more difficult; the educational macro-structure is now so complex and litigious that almost any change can be easily vetoed; loose coupling between federal and local systems, (and indeed loose coupling within local districts) almost guarantees non-implementation of major innovations con-

ceived at the Federal level. Conflict avoidance by educators in potentially turbulent community settings leads to buffered "zones of tolerance," further narrowing the range of curricular decisions to incremental scale.

Boyd's analysis assumes rather clearly that "common properties" of schools stem in part from "inherent/intrinsic" features (such as goal ambiguity in any system devoted to altering persons), and in part from historical features (such as the "professionalization of reform"); it also assumes that such features may have differing relations to variables such as educational change rates at different points in history.

In summary, what do these five exhibits suggest about speculative/stipulative analysis? First, and most obviously, perhaps, basic conceptual frames (ex: structural-functional, politics of education, "loose coupling" theory, etc.) exert a very large influence on variable choice. There are many ways to view (and inattend to) schools' common properties. Second, not surprisingly, the varying networks of variables are in large part incommensurable. The intellectual predilections of authors, their interests in one class or another of independent, intervening and dependent variables, and their largely unstated assumptions about causality, make for a very large diversity. Third, the common properties of schools noted are usually viewed, often implicitly, as having been generated either by "inherent" or by "historically-derived" features, though the "inherentness" is usually stipulative and open to question, and the consequences of a historically-derived feature (e.g., compulsory schooling) may be open to debate. Finally, the authors do little to ground their assertions in empirical data. The analyses are plausible speculation, accompanied by coherent analysis and stipulative definitions. But such discourse can easily turn out to be essentially unchallengeable, untestable, or both. It is hard not to concur with Giacquinta's (1973) comments:

> Various authors have pointed to the possible effects of properties of schools on speed and degree of change. Some of these properties are special features of schools, and others are common characteristics of all complex organizations. All have received minimal empirical support and have been mainly speculative. Furthermore, since on logical grounds different predictions for many of these conditions appear possible, little can be said in the way of their effects on change in schools (p. 197).

Comparative Analysis

A third possible approach to understanding common properties of schools involves systematic comparison. Assertions about common properties of schools in America, strictly speaking, can only be tested by comparative studies. Schools in America should be compared to other types of organizations in America (universities, mental health centers, factories, prisons), and schools in America should be compared to schools in other countries (Canada, the Netherlands, Upper Volta).[5] That way it should be possible to separate out just what is school-specific for this particular culture. But it is fair to say that little of the first type of comparison has been done, and that most of the second type (comparative educational research) has focused on macro-level issues, with little attention to common properties as they are played out in specific school buildings with teachers, students, parents

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[5]There is of course another possibility: comparing American schools of today with those of earlier times. For example, re-reading Waller's (1932) vivid accounts and analyses of what life in schools was like during the late twenties in rural and small-town America shows us that the status and legitimacy of the teaching profession has shifted; that a then unconceived-of "knowledge utilization" infrastructure has grown up; and that role specialization and organizational complexity in schools has developed tremendously. Yet many aspects of the essential "enmity" between teachers and students he describes, stemming from the common property of compulsory school attendance, are still visible today. Most historians of education have quite naturally not focused on the isolation of "common properties" as such, but the opportunity is clearly there.

and administrators.[6]

Typological Classification

A fourth possible approach to locating common properties of any sort of organization involves asking what "type" of organization is being examined, in comparison to other types. Silverman (1971) summarizes efforts in this direction, pointing out that some typologies rest on issues of environmental input (e.g., unstable, threatening environments induce an "organic" organizational type (Burns & Stalker, 1961); mass-production market requirements induce a bureaucratic structure, while small-batch or process technologies induce an "expert"-dominated organization (Woodward, 1958). Other typologies derive from output to the environment (Parsons' (1965) AGIL formulation; Katz' & Kahn's (1966) classification of organizations by the productive, maintenance, adaptive or managerial-political functions they play for their surroundings; Blau & Scott's (1962) focus on "who benefits?", resulting in mutual-benefit, business, service and "commonweal" types; and Weber's (1964) division of organizations on the basis of their connection to structures of meaning in the larger society,

---

[6] For an illustrative exhibit, see Noah & Eckstein (19[illegible]). Even King's (1979) classic text, which supplies exhaustive information on seven national educational systems, gives little systematic attention to locally-seen common properties. See also Fischer (1970), whose ambitious title "The social sciences and the comparative study of educational settings" yields nothing for our purposes (even in Talcott Parsons' essay "Some considerations on the comparative sociology").

resulting in traditional, charismatic and rational-legal bases for authority). Finally, organizations can be classified according to internal characteristics: Etzioni's (1961) view of member involvement and compliance methods as divisible into coercive-alienative, remunerative-calculative, and normative-moral; Clark & Wilson's (1961) typology based on incentives (utilitarian, solidarity and purposive); and Goffman's (1961) view of organizations as providing definitions of the situation on a completely internal ("total institution") basis, or (implicitly) an internal-external basis ("non-total").

This listing shows us several things. First, classifying an organization on one dimension (such as its authority base, market requirements, or benefiting audience) obscures many other important dimensions. For example, if schools are called "maintenance" organizations because of their function in the larger society (an assertion that is contestable), we lose sight of the idea that schools are also service organizations, that they are set up in a rational-legal manner, and so on.

Firestone (1978) has also pointed out the prepotency that single-variable classification of schools can have: he suggests that most researchers, change agents and managers operate using general "images" of schools. Are schools, for example, "rational bureaucracies"? Yes, in many respects. But, he argues, they can also be fruitfully viewed as "sects" with a central ideology, as political systems shot through with conflict and bargaining, as "hospitals" run by the expertise of professionals, aided by administrators, and as loosely coupled anarchies where individuals pursue their interests without serious conflict. Firestone lays out the consequences of using these different lenses thoughtfully, and acknowledges their oversimplified

character. He suggests that schools undoubtedly vary (ex: alternative schools may be more sect-like; large high schools more political, etc.). But that does not help very much with the location of common properties.

Secondly, assignment of organizations to types, as noted above, is not a straightforward matter. Are schools essentially normative organizations, or basically coercive in nature? Are they defined as mass-production (hence bureaucratic) systems, or as small-batch enterprises, with experts (i.e., teachers) playing a prominent role? Empirical data are sparse enough, and alternative views diverse enough that type classification is problematic. A fine example appears in Spence et al (1978). The paper is a strong critique of various "loose coupling" formulations. The authors assert (p. 12), "The facts about schools as organizations are not in dispute. What is at stake is the interpretation of what these facts means and their significance." Some assertions made are congruent with this view:

> The so-called "loose coupling" observed is merely administrative inattention to "differences that don't make a difference." (p. 23)
>
> If custodial supervision and evaluation of students, not instruction, are viewed as the central activities of schools, schools look like other bureaucratic organizations. (p. 11)

However, it also appears that the facts <u>are</u> in dispute. Spence et al assert baldly that "teacher behavior is tightly regulated" by rules and operating procedures, so that their infrequent supervision and evaluation from superiors is irrelevant. But most loose-coupling theorists claim that teachers in fact experience and utilize a great deal of autonomy behind their closed doors. Which is correct? We do not quite seem to know.

Empirical Research

This discussion has repeatedly alluded to the fact that empirical backing for assertions about common properties of schools is usually weak. The task of specifying "inherent", "essential" or "generic" properties is a seductive one. And historical inquiry is a complex, indeterminate process at best. So it is not surprising to see a high speculation/fact ratio. It may be, too, that the sorts of educational information routinely collected (e.g., those summarized in DHEW's Digest of Educational Statistics) are somehow insufficient to the task. The facts that 20% of all U.S. school districts have fewer than 1,000 pupils and that only 1.2% have over 25,000 can only hint at the degree of organizational complexity and bureaucratization we might expect at these two tails of the distribution. More bluntly: empirical data tend to focus on variable, rather than common properties.

Whatever the reasons, it is fair to say that empirical studies examining common properties of educational systems in America, particularly with an eye to relating these to matters of knowledge utilization and school improvement, are relatively rare. Those of substantial scope noted most often in this review are Hood et al's (1976) survey of educational practitioners' use of information (N=628); Abramowitz et al's (1978) national survey of high school principals' views of their organizations (N=1448); Packard et al's (1978) study of team teaching in 29 elementary schools; Meyer et al's (1978) research on the organizational functioning of 188 elementary schools; Havelock et al's (1973) national survey of school superintendents' views of innovations in their districts (N = 353); the NEA's Nationwide Teacher Opinion Poll (N = 1,777) (Teacher Education Reports, 1979); Giacquinta & Kazlow's (1979) nationally stratified sample of school districts asked about their use of open education (N=330). and Daft & Becker's (1978) study of innovation adoption in 13 high school districts.

Concluding Comments

This review of alternative approaches to the understanding of schools' common properties has noted certain themes: the dominance of stipulative/speculative analyses and weakness of empirical support; the limited value of "naive observation" and of typological approaches, and the rarity of relevant comparative analyses. Two other themes have been implicitly present.

Wide assumptive range. The intellectual frameworks brought to bear on this topic are relatively diverse; this in itself provides a quasi-comparative advantage. Bureaucratic theory (e.g., Bidwell, 1965; Spence et al, 1978), variations of structural/functional thinking (Corwin, 1971; Sieber, 1968), systems theory (Miles, 1965), approaches from the policy sciences (Elboim-Dror, 1970, 1973) ideas from the politics of education (Boyd, 1978, 1979a; Hawley, 1975, 1976), educational administration theory (Willower, 1971), variants of "loose coupling" theory (Weick, 1976; Cohen, March & Olsen, 1972; Meyer & Rowan, 1977, 1978); concepts from anthropology (Gallaher, 1965) have all been applied. We are not suffering from a "received" view of the issues in this area, and there is a moderate amount of disputation going on.

Stabilization bias. Most existing analyses of common properties seem to view them as promoting non-innovation, resistance, and business as usual. A good example is Morrish (1976), who in a chapter explicitly titled "Why schools change so slowly", lists a range of properties ranging from overcentralization to absence of change agents, underdeveloped scientific base, confused goals, uniformity, monopoly and non-competition, passivity, "separation of members and units" and "hierarchy and status". All are asserted to be barriers to change,

though a case can logically be made that some (ex: loose coupling, or hierarchy, to take two diverse examples) could under specified circumstances aid change.

This "pessimistic" bias, which Sieber (1980) has discussed as broadly characteristic of the literature on educational change, is probably unjustified empirically (see Sieber). In the case of "common properties" analyses, the bias is probably generated by the fact that most analysts are positioned outside the school, with a set (often generated by Federal or state initiatives) toward change and reform. As part of the "innovation establishment" (Fullan, 1979), or as reform professionals (Boyd, 1978), they have a vested interest in claiming that the object of change efforts is resistant (hence needs to be studied, intervened in, etc. through the medium of funds directed toward the analyst).

The preceding notes on the importance of understanding schools' common properties, and these comments on the state of available analyses, set the stage for the remainder of the paper. In turn, it (1) proposes a general conceptualization of the area; (2) outlines the substance of what is"known" about common properties of schools (whether stipulatively or empirically); (3) draws general implications for the study, support and management of educational change efforts. The discussion is organized around nine key dilemmas faced by the inhabitants of educational systems (such as whether close coordination or provision of flexibility and autonomy are preferable). Gaps in present understanding, and a suggested research agenda will be developed as the discussion proceeds.

The general intent of the paper is to promote reflection and further inquiry into issues of knowledge utilization and educational "improvement"

efforts. Accordingly, it will not attempt to confirm or refute particular claims and assertions--only to illuminate them for skeptical analysis. The tempo will be reasonably brisk.

## Conceptualization of the Area

### Common Properties

The literature reviewed for this paper contains assertions by many different analysts that one or another property of schools is common, "generic," basic, essential, typical, focal, inherent, etc. Such properties actually seem to be sortable into two categories.

Inherent/intrinsic. Some properties seem to be derivable from core features of the educational enterprise as such (for example, the idea that education involves "people-processing").

Historical. Other properties labelled "common" seem to have been historically derived: particular events (such as the passage of legislation on compulsory education), social processes (such as the emphasis on "efficiency" in educational management in the 20's and 30's), or general "historical drifts" (the growth of collective bargaining by teachers) variously seem to have created features common to all schools.

Neither historically- nor inherently-derived properties are directly observable. But one can discern particular regularities in schools and make the inference that they are derived from the "source" property. For example, the goal displacement or preoccupation with educational means noted by some observers may be traceable back to the fact that a "people-processing" system necessarily has diffuse,

hard-to-measure goals. Other observed regularities may have been historically generated (for example, the permeability of school boundaries and the supposed vulnerability of schools to influence from their communities can be seen as a natural consequence of constitutional allocation of education to the states, and the de facto assumption of the function by local communities). Still other regularities in schools may have no very clear or plausible antecedents (such as the fact that schools tend to have an aggregated, "cellular" structure, with low observability of role performance). Yet such regularities are widely observed, and presumably have a "core-like" status, even though, as in this example, they are not universal (differentiated staffing and team teaching do exist in some schools).

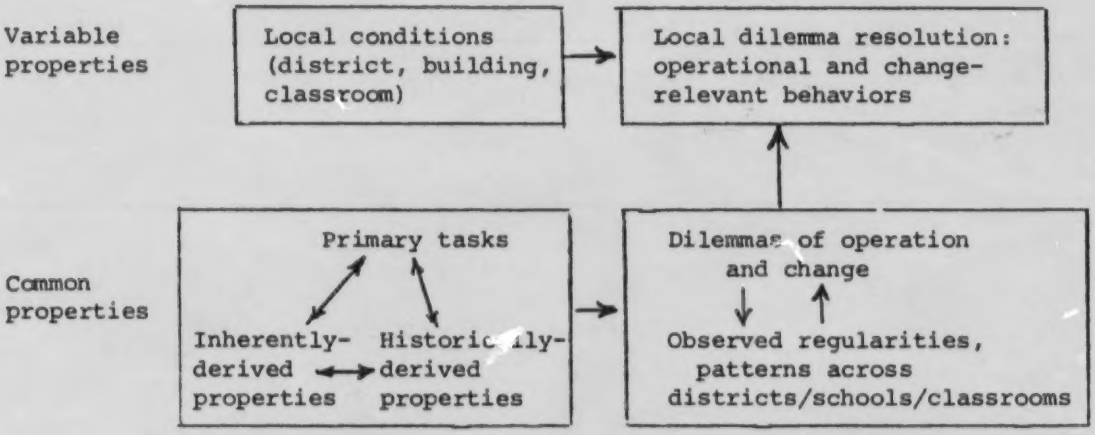
Once again, we should note that some common properties and their associated regularities are simply claimed, asserted or stipulated by analysts; others have more or less -- usually less -- empirical support. A stipulative approach is of course appropriate at the "inherent" level (no one could reasonably deny that education is a "people-processing" operation -- though it can be (and has) been pointed out that it may more typically be a "people-sorting" enterprise). The discussion of common properties in later sections of the paper will begin with observed regularities, then do a "traceback" operation to "inherent" and "historical" properties which seem to be reasonable causal candidates. Gaps where data seem especially needed will be identified.

## The Role of Common Properties in Change

How might common properties of schools play a part in efforts to alter schools? Figure 6 suggests a general schema.

FIGURE 6

VARIABLE AND COMMON PROPERTIES OF SCHOOLS




The schema should be sketched out briefly before more detail is given. Schools as social systems have certain primary tasks (managing their goals, carrying out internal task and integrative operations, relating to the immediate and larger, distal environments, adapting and changing themselves, and managing all the above coherently). The demands of these tasks, in conjunction with the inherently- and historically-derived properties of schools in this particular culture, lead to certain observed regularities and some dilemmas (for example, whether schools and school systems should be centralized and tightly managed, or decentralized, with much local authority for decision-making).

So far, the discussion has focused on properties common to schools: their inherently- and historically-derived aspects, the regularities they exhibit (and, at a more abstract level, the primary tasks they face and the

dilemmas they encounter). But each local district, building and classroom also has many variable properties stemming from the uniqueness of local conditions (a state-mandated program, a weak superintendent, a wealthy community, cosmopolitan teachers, rural suspicion of "Washington" programs, influx of lower-SES students, etc.) These local conditions, in concert with the regularities and dilemmas seen as common properties, generate operational and change-relevant behavior (by teachers, administrators, Boards, change agents), which can be seen as patterned resolution of dilemmas. Such patterns are typically not wholly accounted for by rational "decisions," plans or even coherently-acted-on intentions; they often "just happen." Nevertheless, they do seem to be a result of the simultaneous presence of regularities and dilemmas common to all schools, and the uniqueness of local conditions.

The label "behavior" is used to remind the reader that "tasks," "properties," "conditions," "dilemmas," and similarly abstract entities cannot really be reified, and ultimately have their reality only as influence on specific behaviors of specific persons in particular roles ("Shall we apply for the Title IV-C grant?" "Tell Sandra's mother I'll call her back," "You're suspended." "I think she's the better candidate for the superintendency," "What should we deal with at the January in-service session?" "Not that textbook again.") Aggregated over time, dozens and hundreds of such behaviors constitute organizational processes of operation and change.

In the perspective offered here, "school improvement" programs represent only a portion of the dilemma-resolution pie: these efforts to change schools which are relatively deliberate, bounded and named. And as we shall see below, "knowledge utilization" is only one of nine basic

dilemmas being posited. These comments are made here to counter the usual tendency of program funders, change agents and researchers not to notice how much else is going on in schools beside the programs and variables they are interested in.

Operations and change. There are distinctions to be made between operations and various types of change. By "operations is meant the more or less predictable execution of organizational routines, programs, defined tasks (teaching, tabulating attendance, running department meetings, scoring tests). There are three levels of "change" that can conveniently be distinguished: First, there is maintenance, including activities labellable as "trouble-shooting", "repair", "oiling" (for example, a special staff meeting to look at progress in a new program; a series of interviews with troubled parents; working the bugs out of a scheduling system); such activities accept the system (school, or district) as given, and are aimed at fixing, tuning, or facilitating it. Second, there is marginal change, consisting of substitution or addition of elements in the system (for example, a new reading program, hiring of teacher aides, conferences replacing report cards, a modular schedule). Most "innovations" have this character; they too take the system as more or less given, but consider that it needs new and different parts ("practices"). Finally, we can conceive of core change, alterations in the structure and functioning of the system itself, substantial enough that one can speak of a change in "capacity". In this latter case, we are no longer taking the system as given, but as itself in need of alteration, redesign, strengthening, building, etc.; the innovation is not "in" the system, but "of" the system. Examples include reorganizations, com-

prehensive programs (ex: Individually Guided Education), organization development, and the creation of alternative schools. We might note in passing that most discussions of "common properties" of schools under-attend to their effects on maintenance-level change (often considering them only to be conservative, or system-stabilizing in nature), give slightly more attention to core changes (as in discussions of "self-renewal", etc.), and most attention to marginal, part-innovative change.

Given this imbalance, it is not likely that clean empirical connections can be made between common properties of schools and operational and change-relevant behaviors in them. And furthermore, as Figure 6 clearly suggests, local variability enters the picture in a basic way: dilemma resolution is only in part a function of commonly-observed school regularities. Thus, assertions about monolithic relationships between any particular property and the "innovativeness" of schools, though they have frequently been made (in more or less polemical form), need rather to be converted to testable hypotheses. The conceptualization outlined in Figure 6 leaves the possibility of direct causality open. It is always possible that <u>some</u> common properties are so essential, so basic, that they transcend any possible local variables in determining amounts and types of change in schools. But the empirical fact of wide variation in schools' changefulness (or indeed more specifically their utilization of knowledge) makes that possibility extremely doubtful.

Primary Tasks of Schools

We need not dwell at length on the primary tasks schools face as social systems embedded in an environment.[7] In brief, schools must work on the following issues:

1. Core task accomplishment. This involves the delivery of educational and associated services (such as custodial care, recreation, counseling). While there can be argument over whether the school is actually more focused on directly educational (instructional) or simply custodial (accounting for the presence of children) tasks, there is no argument over the fact that schools exist "for" something, have a primary emphasis to carry out.

2. Integration. Schools and school districts, like any social organization, are composed of differentiated parts -- roles and subsystems -- which need to be linked and connected, coordinated in understood ways.

3. Environmental relations: immediate. Schools and the districts they are a part of engage in transactions with their immediate community settings: they receive students, indoctrinate parents, gain community endorsement and financial resources.

4. Environmental relations: distal. Schools also have relations with a very large range of institutions -- commercial, professional and legal -- far beyond the boundaries of the immediate community. These include intermediate service agencies, state departments of education, universities, R&D producers and distributors, materials vendors,

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[7] Any such listing is arbitrary in some sense: this draws on Berman & McLaughlin (1979), Miles (1978a, 1978b), and Schmuck, et al. (1977).

professional associations, certifying bodies, Federal agencies, and state and Federal legislatures.

5. Goal-setting. Schools are faced with the task of seeking, identifying, and gaining commitment to goals relevant to any of the four preceding tasks.

6. Management. Work on all other primary tasks needs to be steered in a more or less coherent, predictable, reasonably regular way.

7. Adaptation. Schools need to cope steadily with the fact that environmental demands and organizational resources may not match, and to engage in a process in which

> both the environment and the organization become different in some respects.... [ideally] the system's ability to bring about corrective changes in itself is faster than the change cycle in the surrounding environment. (Miles, 1965, p. 21)

In effect, schools usually need to alter themselves (and the relevant portions of the environment) more or less steadily in order to achieve identified goals.

## Dilemmas of Operation and Change

As schools and their districts cope with the seven tasks outlined above, in the context of their common properties, they typically encounter dilemmas. For purposes of this discussion a "dilemma" represents a choice between two goods, which are defined as mutually exclusive. Berman & McLaughlin (1979), for example, discuss five such dilemmas, one of which involves the school's management of the boundary between itself and the local community. If it blocks out

community influence in order to protect the autonomy of professionals (one good), it runs the risk of losing another good (community financial support and endorsement). Or if strong community influences are admitted to buy support, it is quite likely that professional autonomy will be severely compromised, and some poor educational decisions may be made.[8] Similarly, Corwin (1971) outlines three dilemmas (for example, uniform treatment of students (to insure equity) versus flexible serving of diverse student needs. And Miles (1973b) proposes eight basic dilemmas encountered in the planning and implementation of new schools, such as whether to seek expert knowledge from outside the local system (and avoid re-inventing the wheel), or to rely on trusted internal resources (and get committed, system-appropriate ideas).

Here are nine typical dilemmas of school operation and school change. The following section will discuss the dilemmas in more detail, one by one, with attention to associated regularities, and their inherent and historically-derived antecedents. The first three dilemmas are focused largely within the school.

1. Core task focus vs. "survival" emphasis. Schools are always faced with multiple goals, and energy is not infinite. A school may choose to place primary energy on its core task -- delivery of educational services. But this may mean that crucial bureaucratic and political goals may go unachieved (ex: key teachers are transferred

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[8] The "choice" implied in a particular dilemma may not be particularly apparent to any particular actor in a "school improvement" drama. A particular event or behavior (such as creating a citizen advisory committee, refusing an interview with a local editor, or hiring a complaining parent as an aide) may often be seen as the "only" or the "natural" thing to do, with other alternatives only dimly considered. Yet to an observer a clear choice between goods has occurred; one horn of the dilemma has been honored over the other.

out, the Board refuses to fund a promising program). Though schools, as we shall see, rarely encounter genuine threat to their survival, the quality of their survival can be appalling if bureaucratic and political issues are ignored. But -- as with all our dilemmas -- an exclusive emphasis on one horn forecloses the other. A school where most decisions are bureaucratic/political typically treats its core task as incidental and peripheral: it matters little what goes on in the classroom so long as the parents and the central office aren't complaining.

This dilemma can also be construed in other terms: the issue is how central professional concerns seem to be in any particular decision. Teachers are labelled "professionals" (of this more below), who are to apply their expertise to the instruction of learners who have been placed in their care. But they are not free-standing professionals like doctors in private practice; they must function in an organization, in a political context. Yet their continued ability to "do what's best for children" depends in part on how well they play the bureaucratic/political game.

2. Diversity vs. uniformity. At the classroom level, people in schools must decide how far to try and meet the individual, diverse needs of students, using the diverse, individual skills of teachers -- as versus an equitable, fair, efficient, uniform, standard approach that meets expected standards of quality. The socialization of children in part demands "universalistic", impersonal treatment of learners (who have to learn that the world does not revolve around their infant wishes, and that their teachers are not their mothers and fathers), and in part demands the evocation of children's uniqueness, the development

of particular potential, and an affective bond between teacher and student. At the organization level, there is a similar tension: should each teacher be free to use any text, or should there be school-wide concurrence? The conflict is between "Let a hundred flowers bloom" and "If I do it for you, I'll have to do it for everyone."

3. Coordination vs. flexibility. An associated dilemma, currently receiving lively attention from a range of school researchers, is whether the various parts of a school (and the parts of a district called schools) should be coherently, carefully, and rationally knitted together, or whether it makes more sense to allow autonomy and flexibility to the parts. Tightly-coupled coordination means knowing what and how things are happening in a system, and enables quick coping when things go awry. But loose coupling takes less energy, permits more innovation, and is less vulnerable to incompetence (ex: one poor teacher in a self-contained classroom doesn't damage the whole school) and environmental threat. The coordination-flexibility dilemma poses the questions of how much autonomy and latitude individuals and units should have; how much surveillance and control should be present in the system; and how much intervention should occur from "outside" when people are implementing a new program or policy.

The next three dilemmas involve external relationships.

4. Environmental dependence vs. autonomy. In a real sense, all organizations are dependent on their environments (for raw materials, personnel, information, money). But all organizations are also to some degree autonomous, exercising choice over the courses of action they will pursue. The dilemma here for schools rests in how far to define themselves as dependent (subject to the controlling whims of local voters and public opinion, or being the prisoner of state and Federal

legislation) or as autonomous (oriented to cosmopolitan, professional values, and seeking to pursue their own goals around, through, and in spite of local opinion and the official rules). Dependency is useful: it increases predictability (if one has good data on one's surroundings), and if well-managed assures a flow of resources. So is autonomy: you are more likely to get what you want. But both dependency and autonomy have risks and pains. And organizations, like people, cannot have it both ways.

5. Environmental contact vs. withdrawal. An associated dilemma centers around boundary management. One choice involves making the boundary permeable, for both insiders and outsiders; it is easy in some schools for parents to enter, offer criticism, influence or praise, and school people reach out proactively to locate resources, lobby, and fight when necessary. The other choice means tightening the boundary: the school is buffered, protected from outside influence, well defended; school people occupy themselves with keeping school, focusing on internal issues. Withdrawal and buffering are often essential when an innovation must be protected in its early phases, but they may be fatal if the issue is obtaining resources and endorsement from the environment. Proactive outward contact and open access from the community may solve political problems, but divert energy from crucial core task accomplishment.[9]

Note that this dilemma and the preceding one are orthogonal: there can be dependent-withdrawing or dependent-contacting choices, along with autonomous-withdrawing or autonomous-contacting ones.

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[9] Or worse: Gold & Miles (1978) studied an open-space elementary school which invited parents to work as aides, hoping to coopt their opposition to the faculty's team-teaching methods. Many parents volunteered, and used the experience as ammunition to denounce the faculty for incompetence. The faculty had to abandon their methods.

6. External expertise-seeking vs. self-reliance. A third environmentally-focused dilemma, of special concern in this paper, deals with knowledge defined as "technical, "expert" or "specialized." Such knowledge is generalizable, validated, based on accepted/ evidence; it may appear in the form of accepted professional practice (craft, lore), programs, products, scientific or technical reports, and be on paper or carried by a person (advice, consultation, training). People in schools regularly face a choice; should we seek (and utilize) outside expert information as an aid in dealing with some instructional, organizational or community problem[10] -- or can we rely on our own resources? External knowledge is likely to be technically good; one can "stand on the shoulders of giants", people who have specialized skills and have thought the problem through. But people inside the system know what its special quirks, needs, problems and issues are; they know what will work, and who will stand still for it. Insiders' knowledge carries commitment and belief with it; using insiders' energies increases their commitment to the effective use of their knowledge.

Two additional dilemmas are associated with how internal and external functioning of the school are managed.

7. Feedback-seeking vs. intuitive/routine action. Choice-making in schools, as in other organizations, is a function of the information available to choice-makers. The dilemma, once again, is a choice between goods. Should one collect thorough, systematic data on the results of one's efforts (ex: student discussions on how the class is

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[10] Under some circumstances, expert knowledge on the very process of knowledge-seeking and utilization itself may also be relevant.

going, teacher morale, figures on parents' encouragement of homework) to guide subsequent planning and action -- or should one proceed intuitively and directly on the assumption that things are all right, and that existing routines (lesson plans, regular faculty meetings, teacher-parent conferences) are the best guides to action? Collecting data is a risky, time-consuming, and potentially threatening process. Not collecting data can make for unpleasant surprises, not to mention failure in a course of action.

8. Centralized vs. shared influence. Where, how, and by whom should decisions be made in a school? The dilemma appears at the classroom level (should students and teachers share influence over assignments, scheduling, subgrouping, or should the teacher's authority be primary?); at the school building level (will a new program be mandated by the principal, or agreed on with full participation of teachers?); and at the district level (do principals have a say in district-wide budgeting decisions?). This is not the same as the coordination-flexibility dilemma, with which it is widely confused. Many highly centralized systems, as we shall see, are quite loosely coupled (that is, orders come from one place, but are not followed up on and may be diversely responded to). And a tightly-coupled system can be very vigorously participative.

9. Change vs. stability. Our final dilemma is perhaps a sort of meta-dilemma, cutting across the other eight. It appears in many guises. When planning, for example, should members of a school choose innovative, new, different means, with their envisioned "goods" of excitement, effectiveness, modernity -- or opt for stability through the use of familiar, coherent, skillfully-used existing means? More generally, should anything

like a "school improvement" program (focusing on maintenance, marginal, or core change) be undertaken at all? Or, is it more prudent to keep right on doing what one is doing well? At the macro-level schools face the dilemma in terms of social functions: should they be performing a critical or a conservative function for society? Do/should schools serve to maintain the social order -- or transform it?

To summarize: these nine dilemmas are created by the interaction of schools' common properties and their primary tasks; they are suggested as recurrent, pervasive ones which any organization, and schools in particular, must cope with. It should be reiterated that though they have been presented as matters of choice, there is reason to believe (Miles, 1978b) that schools and school districts often find themselves located toward one horn or another of any particular dilemma on a taken-for-granted, de facto basis. The dilemmas appear at the individual (student, teacher, administrator) level, at the subsystem (team, grade, department) level, at the school organization level, and at the district level. Finally, as suggested earlier, just how the dilemmas are resolved in the form of specific operational and change-relevant behavior depends on the vicissitudes of local conditions, including the behavior of local and external managers and change agents. (See the other papers in this synthesis effort (House, 1980; Sieber, 1980; Louis, 1980; Berman, 1980 and Fullan, 1980.)

## Regularities in Schools and Their Antecedents

This section of the paper summarizes the range of empirical data, claims and assertions made about what is typical, stable or somehow "inherent" in American schools. It is organized according to the nine dilemmas, although the reader will be able to see that where a particular property is fitted

is occasionally an arbitrary matter. For each dilemma, the discussions review the regularities various analysts have observed or asserted, with an effort to assess the confidence with which we can say that X is in fact a "regularity". Then causal questions are addressed: what inherent or historical properties (and associated primary tasks) have been claimed as antecedents by various analysts? The discussion for each dilemma concludes with a listing of "gaps": issues where more empirical data are needed.

Dilemma 1: Core task accomplishment vs. survival

In brief, schools face the dilemma of whether to place primary energy on carrying out the educative task with which they are charged, or to concentrate on the issues of bureaucratic and political operation which surround instruction.

Regularities noted. What regularities have various observers cited or asserted?

1. Goal conflict. Several analysts suggest that schools typically are saddled with multiple, often inconsistent goals. Boyd (1979), for example, suggests that

> New goals are acquired even while the established goals are retained. Expectations for the role of the schools seem to expand continuously. The school is asked to be an engine for progress and reform, but at the same time is always expected to maintain society. Thus, by a process of accretion, goals proliferate and increasingly compete with one another for scarce resources. (p. 13)

Elboim-Dror (1970) also notes a lack of priorities: there is no

> hierarchy of goals, subgoals and intermediate goals...means-end chains or even a sequence of subgoals. Without such chains no systematic or logical order of goal priorities is possible. (p. 240)

She suggests that this occurs in part because

> ..While in other organizations people are concerned more about the outcomes of policy formation than the premises on which decisions are made, in education their main concern is with whose values, preferences and subjective experiences will prevail. The intrinsic quality of the goals, rather than their utility, becomes the issue. Because of the need for consensus, the education policy formation system, through the process of bargaining, adopts different and conflicting goals. (p. 239)

As Elboim-Dror notes, goal conflict is in part muted, blurred and accommodated through the convenient device of goal diffuseness and ambiguity. But such blurring, like goal conflict itself, makes it more likely that schools will not focus squarely on the core-task horn of the dilemma.

2. Goal displacement. Many observers have noted that goal ambiguity leads to preoccupation with other issues. Willower (1970), for example, says that

> Internal controls fashioned to constrain and channel student behavior are a prime feature of school organization. Routines and rules abound and assume a preeminent place in the life of the school. Control goals readily become ends in themselves rather than means...Goal displacement is facilitated by the difficulty of showing goal achievement.

Hawley (1975), though he does not invoke the "goal displacement" rubric, does propose that difficulties in output assessment do lead organizational members to

> /define/ the processes that are intuitively related to output and measuring the effectiveness of workers in terms of their deviances from these processes.../and to/ emphasize those activities that appear to be most readily measured whether or not those activities are central to the function of the enterprise. (p. 192)

Niedermeyer (1979) also decries the failure of schools to "make pupil learning the 'bottom line'", and believes the typical tendency is to aim curriculum and instruction in a means-focused direction -- that is:

> ...the "programs", "approaches", "materials" or "innovations" [schools] are currently implementing and using..The universal assumption seems to be that activity means learning, yet rarely is the amount of actual learning ever assessed and determined. It simply is assumed. (p. 20)

The most thorough discussion of goal displacement is by Elboim-Dror (1970), who suggests with some documentation that schools tend to shift their energies from intangible, hard-to-measure goals toward action-oriented, procedural goals; toward measurable (e.g., cognitive rather than affective) goals; and toward instrumental goals. But she notes that the most widespread form of goal displacement is toward organizational maintenance and growth.

3. Input focus. Weisbord (1978), in doing some comparative organizational analysis from the standpoint of a professional change agent, suggests that systems with hard-to-measure goals (e.g., universities) divert their attention away from output toward inputs, particularly admission of staff, typically professionals who:

> wish to be left alone. At best they wish to be critics. Few show enthusiasm for sharing the risks and responsibilities inherent in making policies that constrain their own behavior. (p. 22)

We might predict that schools would also pay more attention to their inputs in the form of students (and their associated parents), than to core tasks. There are some data suggesting this clearly. The recent national study of high schools by Abramowitz, et al. (1978) asked principals about the seriousness of various problems. The most frequently-mentioned problems checked (by from 30 to 90%) were

"parents' lack of involvement in school matters", "student apathy", "parents' lack of interest in school matters", "student absenteeism", "students' cutting classes" and "student disruption".[11] Items such as "teacher incompetence" (5%), "inadequate instructional materials" (10%), and even "teacher lack of commitment" (15%) lagged far behind. In other words, students (and their parents), not the school itself, are the main difficulty. Similarly, the 1979 national teacher opinion poll conducted by the NEA (Teacher Education Reports, 1979), found that the changes in schools favored by the majority of teachers were the following:

> Reducing class size.
> Educating parents in how to help with their children's education.
> Enforcing stricter discipline.
> Devoting more attention to the "basics".
> Enforcing stricter attendance requirements.
> Requiring higher standards for student performance.

Of these, only two ("basics"; "higher standards") refer directly to the performance of core tasks: the remainder are input matters. Furthermore, a majority of teachers did not favor such changes as:

> Wider range and variety of courses.
> Added extracurricular activities.

So emphasis on inputs rather than core task accomplishment has some empirical support.

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[11] Federal and state "paperwork" were also mentioned by 42% and 36% of principals, but the topic may well be a prompted artifact. After all, the questionnaire itself was "paperwork".

4. Symbolic/ceremonial success criteria. Some analysts suggest that schools continue to flourish in their environments through emphasis on what Boyd (1979b) calls the "symbolic politics of efficiency," by presenting a well-managed impression of a "quality school." Meyer & Rowan (1978) go further: they propose that schools have successfully defined themselves as presiding over the "ceremonial enactment of the rituals of schooling", which involve, essentially, the classification of students, subject matter, teachers and schools. "Education is a certified teacher teaching a standardized curricular topic to a registered student in an accredited school." (p. 94) In this view, schools gain their legitimacy and support not by efforts to achieve core educative goals, or even by cutting costs, but by becoming isomorphic with the legal and normative rules of society, and (in effect) substituting clear success criteria for cloudy ones: goal displacement at a grand level. Thus stated, the argument is hard to disprove. But one cannot escape some questions: if symbolic/ceremonial success criteria are so central, how does it happen that so much energy goes into "the evaluation industry", various "accountability" schemes, development of behavioral objectives, and indeed the widespread use of achievement testing itself? One can dismiss these phenomena as themselves symbolic, but that is a tautological escape; one can also claim that they are "decoupled" from actual school operations (an issue to which we will return below). In any case, the presence of symbolic and ceremonially-driven judgments about the achievement of core tasks (as contrasted with actual energy placed on achieving core tasks) ia undeniable in general terms.

On balance, the regularities noted are stacked toward the "survival" horn of the dilemma: goal conflict, goal displacement, input focus, and symbolic criteria for success all lean away from focus on the direct delivery of educational services. We should note, however, that with the exception of the Abramowitz et al. (1978) and the NEA data, there is little direct empirical backing for the assertions made.

Claimed antecedents. What might plausibly cause such regularities (assuming for the moment that they are in fact present in many or most schools)? Here we are on tenuous grounds, because most causal claims are (a) asserted, not shown empirically; (b) embedded (as we have already seen) in a complex network of variables largely unique to the particular analyst at hand. The discussion will be only a listing of various causal claims, labeled as "inherent" or "historically-derived" properties of schools.

1. Goal measurement difficulty. Because schools are officially aimed at bringing about change in people, it is often noted (Miles, 1965, 1967; Sieber, 1968; Hawley, 1975) that their goals are inherently diffuse, vague, non-tangible, and therefore hard to measure. The "inherentness" of this property can be questioned, as Meyer & Rowan (1978) noted:

> ..the view that education...lacks output measures is misdirected. Schools use elaborate tests to evaluate pupils and to shape the course of their present and future lives. But the same data are almost never aggregated and used to evaluate the performance of teachers, schools or school systems. (p. 88)

But even if one takes the view that measurability exists, or that "output measurement difficulty..seems to be a form of organizational

defense or protection against criticism" (Miles, 1965), there is still plenty of room for goal indeterminacy in the mission of schools,[12] and it is a reasonable derivation to conclude (as do many of the authors just cited) that it causes goal displacement, input focus, and symbolic evaluation.

2. Value-laden character of goals. Because schools are people-changing systems, their goals cannot be articulated on narrowly-technical, pragmatic, or obvious grounds, but involve choices that are ideologically and normatively based. Within the instructional sphere, is more emphasis to be put on "the basics" or other matters? How important are affective outcomes? How about scientific literacy? Good citizenship? At a more general level, it is often asserted that schools' goals are basically those of sorting or allocating students to the various levels of society (Meyer & Rowan, 1977), and providing minimum necessary socialization (achievement motivation, a sense of the importance of being places on time, etc.), or simply serving an essentially custodial function (Spence, et al., 1978), meanwhile keeping older children conveniently out of the labor market. In sum, the goals of schools, manifest and latent, represent a sort of multi-level value tangle. and goal conflict is thereby claimed as inevitable.

3. Compulsory attendance. The core task of schools must, since the advent of laws in the late 19th century requiring school attendance, be carried out with all children up to a particular age. The primary clients of

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12 The reader should not jump to the conclusion that hard-to-measure goals are a disadvantage to a system. Elboim-Dror (1970), for example, points out that intangible goals provide more latitude and flexibility, aid compromise, inspire support and commitment ("their function is to move us toward the promised land but not to bring us there"), and intensify the socializing power of the institution. She concludes, "The diffuseness of intangible goals should not be viewed as 'weak' and 'precarious' but as functionally important."

schools are compelled to present themselves for processing, whether or not they wish to avail themselves of such service (Willower, 1977). Furthermore, from the school's standpoint, no selection of clients is possible. There is, in short, a two-way compulsion, in which students (except for wealthy ones) cannot exercise the "exit option" (Hawley, 1975) as a protest, and the school cannot slough off students who are reluctant, intractable, stupid, disruptive, or otherwise energy-consuming.[13] This historical feature of schools seems like a plausible cause of the "input focus" noted earlier, as well as of goal displacement: with unselected, unwilling clients, as Willower (1970) suggests, attention shifts away from "education" to matters of behavioral control, tracking, batch processing--themselves, Meyer & Rowan (1978) propose, as much aimed at image management for the school's external audience as at managing learners.

4. Vulnerability. American schools were constitutionally defined as to be managed by the states; the states in turn have traditionally given de facto power to local communities. The "vulnerability" theme will be discussed more fully later; here we should only note that schools in this country, to a far greater extent than (say) in most Western European countries, are influenceable by local citizen pressure. As Willower (1977) notes in an overview of prior discussion of schools as organizations,

> In the most general terms, the school is seen as vulnerable to external environmental pressures, and to internal strains generated by the number and variety of clients to be served and the reluctance of some of them concerning the service. In consequence, a wide range of adaptive structures protect the organization and its adult members.... Such structures channel variety and threat... uncertainty is reduced.

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13 Except tacitly, through making it easy for older students to become "dropouts", or implicitly condoning very high absence rates, as in some urban high schools. (New York City's run about 30%.)

It does seem logically reasonable to conclude that phenomena such as goal displacement, goal conflict, and symbolic evaluation of school efforts cannot be derived wholly from goal measurement difficulty or the presence of compulsory clients, but are in part a result of school vulnerability; schools well-buffered from citizen control would presumably need to devote less attention to political issues and image management, and could put more emphasis on delivering educational services. However, the argument is not wholly compelling: most observers would agree that urban schools have far less vigorous parent participation than suburban ones, but the energy devoted to bureaucratic and political matters remains substantial.

Knowledge gaps. The discussion in this section has summarized claims that schools, in the domain covered by the "core-task vs. survival" dilemma, tend to show goal conflict and goal displacement, are more preoccupied with their inputs than their outputs, and manage their environments via "ceremonial/ ritual" presentations. These phenomena, say some analysts, are generated by the difficult-to-measure, value-laden character of schools' goals, as well as by the historically-given facts of compulsory attendance and local control.

1. Assessment of causal claims. Firmer empirical data on all these regularities (except, perhaps, for input focus) would be welcome. The causal claims, in particular, should be assessed for their validity. For example, in states where goal measurement difficulty has been (somewhat) reduced through accountability and minimum-competency mandates, is there any evidence of reduced displacement of goals away from core task accomplishment?

2. Extent of practical goal consensus. At present, we do not know very clearly just what schools (and districts) use as de facto goals. Most educational systems are careful to have a set of publicly-stated goals. But what working (or surrogate) goals really guide day-to-day

effort -- not only in the accomplishment of core tasks, but in system integration and relation to the immediate and distal environments?

3. Comparative studies of vulnerability. We know little about vulnerability and its consequences for core task focus. Partly, the concept itself is woolly; it seems to refer variously to how far the school can be influenced by its environment; to whether that influence is predictable or uncertain; and to the insecurity of specific role inhabitants. Once the concept is unpacked, comparative studies would probably be useful: states with vigorously vs. weakly-enforced mandates for various changes; states with strong local-influence structures (e.g., California) vs. others; districts of comparable wealth which have had sustained, predictable community support vs. those where capriciousness has reigned. In all such comparisons, what relative balance between core task emphasis and bureaucratic/political emphasis seems to be present?

Dilemma 2: Diversity vs. uniformity

This dilemma represents the tension between treating learners particularistically, in response to their unique needs, as vs. universalistically, in the interests of justice, economy and routinization. The dilemma also appears as the behavior of adults in school organizations is examined.

Regularities noted. A number of claims have been made recurrently in this domain.

1. Structural supports for uniform treatment. Certain aspects of American schools are so "obvious" that their role in supporting uniform treatment of students is often inattended. For example, students are age-graded, though the range of intellectual and social competence in almost any group of 10-year-olds may include students who think and act like

seven-year olds and fifteen-year olds. Nominal efforts to deal with such diversity through the medium of ability grouping and vocational tracking (Packard, 1977) are nearly universal, but as Carlson (1964) points out, they often result in "segregation" of different classes of learners (e.g., vocational programs are used as "dumping grounds"), and to preferential treatment (more favoring of middle-class students). Most observers of schools would agree that the majority of instruction takes place in a "batch processing" mode rather than in small groups, one-to-one tutoring, or individual work.[14] (However, it should be noted that firm data on this are rarely cited.)

Other structural supports favoring the uniformity horn of the dilemma appear closer to the school's core technology: instruction. As Packard asserts (1977) in his fascinating analysis of the school as a "work organization" (in contrast with the school viewed as a client-serving organization or a bureaucracy):

> One of the most striking features about the school work place is that the students are usually assigned to groups which may remain intact for various periods depending on the manner of sub-batching. Work is assigned en masse and in parallel. Members of a pupil batch receive the same instructions on task completion at the same time. Each member of the group is usually assigned the same task, which each is expected to complete individually. (p.25)

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[14] Batch processing should not be seen as deliberate, repressive, inhumane, etc., but as a natural response to the presence of numbers of learners in one place. As Herskovitz (1963) notes, most pre-literate societies carry out educational functions (such as insuring correct linguistic behavior, clarifying ways of making a living, transmitting moral codes, teaching the causes and cures of illness) in the family or clan, largely on an individualized, one-on-one basis. But "schools" do exist in pre-literate societies, and when they do, isolation from the surrounding society and batch treatment occur. He cites Watkins (1943) on West African 'bush' schools:

> The boys are divided into groups according to their ages and aptitudes, and receive instruction...in all the arts, crafts and lore of native life...The first instruction involves a series of tests in order to determine individual differences, interests, and ambitions...

(footnote cont'd p. 48)

Packard notes, however, that because of "loose coupling" this standardization of assignments to batch members does not apply to the adjacent work role, that of teachers.

> What has constantly surprised classroom observers are the differences in classroom management, particularly how teachers develop different tasks for themselves and their students and how they distribute time among them. (p.32)

Packard quotes Meyer and Cohen (1971) as wryly noting that "the student is the only class of employee for whom the school can be regarded as a bureaucracy." The image is thus one of a diverse set of subsystems (classrooms) within each of which a good deal of uniformity and standardization exists for students.

Finally, schools are environments closely regulated by time schedules: as Jackson (1968) notes, "school is the place where things often happen not because students want them to happen, but because it is time for them to occur;" and as Spence et al (1978) emphasize, "Where a teacher or a student should be at any given time of the school day is unambiguously prescribed." Abramowitz et al's (1978) national study of high schools found that 93% used traditional 35-60 minute periods; only 1-2% used more diversity-responsive methods such as modular, flexible, or demand scheduling, or use of larger time blocks.

2. Minimal use of learner-responsive technologies. It is often suggested that schools typically do not use instructional methods which are aimed at "individualization", respecting the diversity of student attributes. For example, Sarason (1971) reports a study finding that elementary teachers asked 45-150 questions of students (usually with a "fact" answer expected)

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(footnote 14 cont'd)

> A youth who shows special aptitude for weaving, for example, is trained to become a master of the craft; while those who show distinctive skill and interest in carving, leatherwork, dancing, "medicine", folklore, etc. are developed along these specialized lines...(pp. 670-1, 673-4)

in a typical half-hour, while students (in the aggregate) asked only two questions. Havelock et al (1973), in their national survey of innovations, found that only 15% of superintendents reported use of "individualization and team teaching". Giacquinta & Kaslow (1979) found that 61% of school systems in a national sample had never tried "open education" (including such features as "diverse materials and activities", "pupil progression at their own pace" and "children free to move about the school"), and another 22% had reduced or discontinued their first efforts in this direction. Only 13% had a stable first effort, and 5% showed an increase.

Data from Abramowitz et al's (1978) study of high schools at first glance look somewhat more supportive of diversity: they found that 87% of schools offered the individual-need-meeting feature of remedial instruction, 65% offered early graduation, and 37% had alternative programs. However, if individualization is defined more crisply, we note that only 23% used "individually paced learning" and 11% "diagnostic-prescriptive education." And although nearly all schools had students working off campus (work experience, volunteer work, study projects etc.), such potentially-individualized experiences were only available for a few students (9% of 11th graders, and 16% of 12th graders).

3. Preoccupation with student control. Many observers have focused on this as a central feature of schools. Willower (1970), who has written widely on pupil control as a central feature of schools, suggests:

> Internal controls fashioned to constrain and channel student behavior are a prime feature of school organization. Routines and rules abound and assume a preeminent place in the life of the school. Control goals readily become ends in themselves, rather than means..

Lortie (1977b) notes that compulsion begins with required attendance; this along with financing based on "average daily attendance" leads to:

> ..an elaborate apparatus of registers, hall passes, medical excuses, and attendance officers. Teachers and school administrators take on, willy-nilly, some of the functions of prison guards, finding that much time is spent on non-instructional activities. (p. 27)

Packard (1977) suggests:

> Control of student behavior is a dominant school theme. Supervision is tight in the classroom and often in other areas of the school as well. Principals and teachers are sometimes stationed in hallways while students are changing rooms. Close scrutiny is often given in the lunch room and in the auditorium. Even after-school events require supervision. (p. 33)

And in the classroom, (especially in grades 5 and upward), Packard says:

> ...students, irrespective of their group assignment, are treated as low-level workers. They are assigned work and closely supervised. They have little or no autonomy over task selection, work pace, work locus, acceptable levels of production and work quality. They have little freedom of movement. They are expected to adhere to a fixed schedule of school and classroom activities. (p. 12)
>
> Students are told not only what they are to do, but often are also instructed in the manner in which they are to complete the work, including when, where, and at what level of proficiency. (p. 15)

Lest it be thought that control of students is restricted to rambunctious adolescents, we should note that Giacquinta and Kazlow (1979) found in their national study of elementary-level open education that only 24% of respondents thought their school systems accepted the idea that "pupils should make key decisions about learning", 22% accepted "pupil self-grouping according to interests", and 9% accepted "pupil-determined activities with no fixed timetables."

The NEA's 1979 Nationwide Teacher Opinion Poll found almost unanimous agreement that "enforcing stricter discipline" was a needed change in schools, and gave "discipline" top priority as a research topic.

The empirical data from Abramowitz et al (1978) are instructive: only 7% of high school principals say that "student disruptiveness" is a serious problem. A possible reason for this can be seen in the fact that control through rules is very typical. For example, 73% formally require hall passes; 58% require students to stay on campus at lunchtime; 82% make students responsible for property damage; and 69% have formal rules requiring teachers to handle discipline problems within their classes (another 24% said this was informally the case). For contrast, we might note that only 7% of principals said there were formal rules controlling the amount of homework given students, and 31% mentioned rules governing student dress, a matter which once exercised administrators and teachers mightily.

Even with allowance for the fact that assertions about student control are sometimes polemical and deploring in tone, there are enough empirical data to support the generalization that student behavior is rather closely regulated most of the time in schools, with student choice over immediate activities generally minimized.[15]

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15 We should note in passing, as do Spence et al (1978), that the energy spent in student control has (as in all influence situations) back effects: teachers and administrators are themselves constrained and controlled by the need to control students. Enforcing rules, living by bell schedules, and turning in students caught smoking in the toilet all reduce choice and autonomy for those nominally more powerful than students. As Lortie (1977) notes, teachers, more than almost any other profession are "time and place-bound -- during working hours, they have very little physical mobility and few occasions for joint undertakings." (p. 26)

4. Increase in bureaucratization. Many analysts have suggested that schools in America became bureaucracies in the late 19th century, and have become more "bureaucratic" over the last hundred years. The label is variously used: but usually alludes to features such as increased division of labor and complexity; a more substantial managerial role; and increased routinization, formalization and objectification of rules and policies guiding decisions.

Revisionist critics such as Katz (1975) have suggested that the bureaucratization of American schools was a process engaged in by administrators in order to serve elite interests and maintain the existing inequities of the social structure. Bureaucracy is seen as a "crystallization of bourgeois social values." These views have been sharply countered by Michaelson (1977), who points out that large changes in bureaucratization occurred primarily as a result of compulsory education legislation advocated by teachers and administrators (up to then paid by individual parent billing) to establish their financial security. Schooling by the mid-19th century was in fact nearly universal, though not free or compulsory.

> Full tax and compulsion firmly established the power of common school administrators and, in a different way, teachers over parents and children. Indeed, they created the essential conditions for insulating school management from citizens generally; namely, the assurance of a budget independent of satisfied consumers. (p. 236).

Michaelson continues, noting that

> ...we may assume that bureaucrats, including schoolmen, seek...to survive, to enlarge the scope of their activities, to gain prestige, to avoid conflict, to control the organization and content of their daily round as much as possible...By accepting this theory

> of motivation, we do not rule out altruism. Administrators and teachers, like entrepreneurs, take pride in their work and strive for excellence...Each bureaucrat, then will seek in good faith to maximize the activities over which he has control. (p. 239).

So although explanations differ rather substantially, both authors are agreed that bureaucratization (that is, the emergence of modern organizations) has occurred in schools.

Has it in fact advanced? The answer is undoubtedly positive, even without extensive retrieval of empirical data. Features such as the steady consolidation of school districts; the increased size of schools and school districts; the professionalization of administrators; the application of "scientific management" procedures from business after World War I (and of management systems thinking currently as well); the emergence of a wide range of administrative roles unheard of even twenty years ago (from Federal projects officer to director of organization development); the growth of civil service examinations regulating entry to administrative and teaching positions; and the detailed formulation of policies and operating rules are familiar indicators.

But do schools actually operate like traditional bureaucracies, or should they be construed in other terms? The issue here is perhaps less empirical and more a matter of what frames are most fruitful and explanatory. Hanson (1978), for example, suggests that traditional bureaucratic theory needs modification: presence of professionals means that the organization should be seen as including two authority structures, with a balance of power between teachers and administrators, each with their spheres of

influence. The growth of collective bargaining has if anything eroded administrative power, he claims. Analyses offered by Bidwell (1965) and Corwin (1971) also stress the conflict between professional and bureaucratic modes of operation.

The Abramowitz et al (1978) study found a good deal of evidence that high schools' structure and coordination mechanisms were not like those of traditional bureaucracies. Staffing patterns were relatively non-complex (ex: 60% had only 1 assistant principal; 45% had only 1 specialist or counselor; 40% had fewer than nine subject-matter departments). Principals claimed that their own roles were not narrowly conceived in authoritative terms, that there was widespread participation by teachers and specialists in decision-making (a topic we shall return to), and that they considered their collegial role very important (83% mentioned work with teachers on instruction), along with their "ambassadorial" role (74% mentioned "relating personally with parents and community"), and their strictly managerial role (76% mentioned "enforcing school rules and policies".)

Furthermore, principals spent very little time actually observing teachers: 55% said they were in classrooms once a month or less (since the average school in the study had 47 teachers, any given teacher was probably seen not more frequently than the once-a-year evaluation required in most schools.) These data lead the authors to propose a "loose coupling" model as more appropriate than a bureaucratic one.

As we have seen, Spence et al (1978) offer a strong critique of loose coupling formulations, arguing that teachers' classroom behavior is narrowly prescribed and highly institutionalized. They cite

> ...direct and indirect controls which regulate the behavior of the teacher in the classroom -- scheduling, record keeping, resource allocation, hiring and firing, and certification.

and doubt that "teachers have more than an ordinary range of bureaucratic discretion in carrying out their duties." (p. 15). Using Weber's image of the "iron cage," they point out that

> A person can be in a cage without being constantly under observation or supervision. Indeed, the point of the cage is to make such actions unnecessary. ...The cage does the regulation of the person continuously, impersonally, unobtrusively until it becomes to its occupant a part of the facts of life. (pp. 21-22)

They suggest that "the cage" consists of the teacher's required order-maintaining presence at specific times and places, along with records, lesson plans, etc. and conclude that schools are indeed bureaucracies, though they have been "radically changed" from service organizations carrying out teaching to custodial processing systems. Once again we should note that empirical data to support these claims are thin.[16]

Claimed antecedents. Generally speaking, we have noted that, when the diversity vs. uniformity dilemma is considered, schools are seen to contain many structural supports for uniform treatment of students (and teachers); that technology supportive of particularistic attention to learners tends to be under-used; that much emphasis is placed on control of students; and that schools (with some qualifications) exhibit many of the features of bureaucracies. What historical or "inherent" properties of schools are

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[16] One recent study does suggest that, if a "cage" does exist, there is still room for movement within it on issues that matter. Rutter et al (1979) in their seven-year study of 12 secondary schools in London, found that the amount of time spent during classes on non-instructional matters (time off task, in effect) ranged from 15%-35%. We should also note Cusick's (1973) finding that some teachers spend less than half as much time actually teaching as others.

claimed to cause these regularities?

1. Output measurement difficulty. As with the earlier discussion, it is claimed that features such as routinization and standardization can be traced to the presence of "hard-to-measure" goals (Hawley, 1975). The claim is not a very strong one, however, since (for example) profit-making organizations do not show perceptibly less routinization than schools.

2. Large numbers of clients. It is more plausibly claimed that the sheer presence of many learners generates both uniform treatment and a strong control orientation. (Sieber, 1980; Willower, 1970; Carlson, 1964). The presence of many learners is said to stem from the passage of compulsory education laws. Yet we note with Michaelson (1977) that prior to the passage of compulsory education legislation, schools were for practical purposes universal (90% of students attending), and were less bureaucratized than they shortly became.

3. Vested interests of employees. Michaelson's view is that routinization and uniformity were (and are) essentially driven by the security needs of teachers and administrators, in conjunction with the presence of numbers of students:

> ...a process of bargaining between the teachers and their principals and between the principals and the central administration leads to reasonably acceptable arrangements for all concerned. The needs of teachers and principals for control over their jobs most often take precedence over the needs of individual children and their families...This bargain, insuring to the district's employees significant independent influence over the internal agenda, is the central feature of the school bureaucracy...The easiest way for a teacher to manage 20 or more students, given the bargain just described --which precludes, among other things, material rewards for superior performance--is to treat them all alike when, of course, they are often quite different from each other. (pp. 240-41)

4. Immaturity of clients. Still other observers suggest that uniformity and control orientation occur because students, after all, are less than adult. Lortie (1977b) notes:

> ...children and adolescents...are not yet mature. In some respects teachers are trying to get regular work from irregular workers while teaching those who are still trying to learn. In other words, we can think of school professionals as making up the "deficit" in self-control, work motivation, learning skills, etc. among their students...Because students are normally in groups, the particular immaturities of some children may force procedures on all that prove alienating; for example, to maintain order, teachers may be forced to become more austere than they wish to be. (p. 27)

And just as elementary school children supposedly need to be controlled and managed uniformly because they are "too young", we can note that adolescents deserve the same treatment because they are not quite so young; their ressentiment and mobilization against the teacher subculture (Willower, 1971) must be warded off.

More generally, if the social function of schools is essentially custodial, as Spence et al (1978) propose, and as Meyer & Rowan (1977, 1978) also suggest, then uniform treatment is much more likely than if insturction is the core social purpose.

5. Client motivation problems. Sieber (1980) proposes that the involuntary presence of clients requires arrangements (such as tracking) to cope with the fact that all students do not want to learn. More generally, Packard (1977) notes that the "domesticated" nature of schools

> ...creates a problematic supply of student motivation...Work motivations may vary considerably from individual to individual, but nearly all children are required to come to school...the inflow of student motivation is decidedly uneven from time to time and across individual students... Students may also "spend" their motivation on other

> commodities available in society and so reduce the supply available for school work. Otherwise, students may simply withhold this resource. Student work motivation represents the most obvious resource for which schools must compete with other, sometimes unknown rivals. As schools have little or no jurisdiction over their competitors or parents the supply of student motivation is a problematic issue. (p. 7)

Packard suggests that schools, because of the delayed rewards society offers for student productivity (college admission, jobs), cope through the creation of standardized grading systems (which are, however, counterproductive, since low grades are usually awarded to the least-motivated students, reducing their motivation still further).

Knowledge gaps. In the general domain covered by what we have labeled the diversity--uniformity dilemma, what are the main uncertainties and empty spaces?

1. Actual instructional modes. We do not know, in any systematic way, what instructional modes are occurring, on a day-to-day basis, across a well-drawn sample of American schools. How much time is actually given to large-group instruction? to small group work? to one-on-one tutoring? to individual effort? And one step finer: in, for example, the case of individual effort, what proportion of students is engaging in a mass-assigned task, as vs. one tailored to individual needs? There is a great deal of rhetoric about "individualization" in schools, but we do not have good baseline data on what is actually occurring. Such analyses should of course be broken by school level, or perhaps by the "phases" Packard (1977) suggests: "nurturant" (grades 1-4 or so), "basic work" (grades 4 to 8 or so), and "pre-occupational (grades 9 to 12).

2. Relation to innovativeness. We also need studies of whether, and how, the uniformity--diversity dimension is related to school innovativeness. Corwin (1975), for example, found that less-standardized (rule-oriented, uniform-procedure-using) schools in his sample of 131 were more likely to be innovative. But Kelly (1977), looking at 30 urban high schools, found that more-formalized, more-standardized schools were more likely to be innovative. The difference may come from the fact that Kelly asked specifically for curriculum-relevant organizational formalization. Or it may come from the fact that Kelly's sample also reported high correlations between formalization and their degree of participation in curriculum change efforts. Kelly's view is that the presence of clear working structures, when accompanied by participative effort, "decreases role ambiguity and conflict and lead/s/to higher rates of curriculum innovation." Perhaps the most parsimonious hypothesis is that routinization and uniformity in schools can be used as a platform for innovation, or to block change efforts, depending on the ideology and commitments of the staff.

3. Relation to effectiveness. Finally, we need to know how routinization and diversity are associated with school effectiveness (an issue, in spite of short-cut assumptions to the contrary, that can be examined independently of the innovativeness question). Here there is some evidence that a coherent, somewhat formalized organizational structure makes for better school output. Miskel (1979), in a study of 125 schools, found that more-effective schools (as identified by teachers) had more-formalized general rules, more complexity (high professional activity) along with more

participative, less-centralized power structures (a finding reminiscent of Kelly's).

Rutter et al's (1979) longitudinal study of urban London high schools found that more-effective schools (as measured by exam-passing, better student behavior, and less delinquency) had many features that added up to organizational coherence (routinization): there were high expectations for students, homework was regularly assigned and read, students had "quasi-supervisory" positions, punishment was fair and consistent, teachers knew that heads would check on homework assigned, and teachers engaged in joint planning.

The message may simply be that a "better-organized" system is more likely to deliver the goods. Still, much remains ambiguous: as with innovativeness, we do not really know which sorts of choices toward the routine horn of the dilemma support and encourage school productivity, and which sorts bring about the standardizing, dulling effects of schooling decried by generations of reformers.

Dilemma 3: Coordination vs. flexibility

This dilemma, associated with the preceding one, focuses on the issue of how carefully and closely the parts of a school's social system (and schools as parts of a district) should be knitted together for communicative, error-correcting purposes, and how far sub-units should be free from surveillance and control, and

enjoy autonomy.[17]

Regularities noted. What has been observed or claimed in this domain?

1. Influence discontinuities. Several analysts have noted that the operation of schools seems best explained by the idea that there are separate "spheres of influence"; Hanson (1975), for example, describes the existence of "two authority structures," in the hands respectively of administrators and teachers. In a case study of four schools in one district, Hanson (1978) extended the idea to that of "interacting spheres" of influence: principals wanted to preserve school-wide decisions dealing with attendance, budget, facilities use, mandated curriculum and the like; teachers wished to keep power over issues such as department spending, department-head hiring, in-class discipline, course content and instructional methods. In the "contested" area between the overlapping spheres, teachers and administrators struggled over such issues as schedule preparation, large-scale innovations, and performance of tenured teachers. Own spheres were defined through a variety of informal means (such as the "pocket veto" through inaction, and the use of temporary coalitions).

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[17] The general question here, of course, is whether a "loose coupling" model is a good fit to the case of schools. As a number of observers, --including Weick (1980, 1976), who has done most to encourage use of the concept---have pointed out, the term is full (probably desirably) of surplus meaning, is in fact itself "loosely coupled." The term has also been variously attacked as "old wine in new bottles" (Spence et al, 1978); as merely another term for the old concept of "functional autonomy" (Sieber, 1980), or as equivalent to the prior concept of "structural looseness (Bidwell, 1965).

"Loose coupling" has been variously used to refer to disconnection between goals and technology, to low surveillance and control, to lack of consensus among role occupants, and indeed to almost any organizational phenomenon that does not seem to look like something that might be expected in a proper bureaucracy.

For these reasons, this section will bypass the term, and focus primarily on aspects of the coordination-flexibility dilemma that seem to be most salient.

Hanson noted tighter "coupling" between spheres under conditions of crisis, environmental threat or time pressure.

Deal & Nutt (1979) in their analysis of rural school systems, invoke the "zones" idea, suggesting that schools operate through the overlapping/interacting contact among "administrative," "instructional," "local" (parents, residents, associations), and "remote" (county, state, and federal government, universities, etc.) zones. Meyer et al. (1978) pointed to the ways in which teachers and principals are separated by jurisdictional boundaries. In a sub-study of 16 elementary schools, focusing on how the teaching of reading was organized, they found fairly close teacher-principal agreement on such matters as budget details and the materials being used, but very little agreement on such matters as how discipline was handled, pupil assignment, and evaluation. Meyer et al. suggest:

> They agree in general on their roles, but they seem to have little agreement on specifics within each school. They also apparently agreed that what each one does within his or her own jurisdiction is by and large not the other's business. And they apparently agree that their jurisdictions do not overlap very much. (pp. 252-53)

Firestone & Herriott (1980) found in a study of 13 elementary junior high and high schools that control over organizational decisions was "zoned," with teachers having almost complete say over daily lesson plans and activities, but limited or no influence over decisions such as hiring new teachers, setting salary schedules or assigning extra duties.

These views of "zones," "spheres," and "jurisdictions"[18] all tend to share a conception of the school as a negotiated order among conflicting

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[18] Cf. Kouzes & Mico (1979), who suggest that not just schools but all human-service organizations exhibit different "domains" (specifically, those of policy, management, and direct service delivery). Each domain "operates by different and contrasting principles, success measures, structural arrangements and work modes, and...the interactions between these create conditions of disjunction and discordance." (p. 449)

interests, most typically those of administrators and teachers; the general problem is how "professionals" with larger loyalties can function effectively in a "bureaucratic" organization (cf. Corwin, 1965, 1971; Bidwell, 1965). As we shall see, the view is not incongruent with more radically-phrased "loose coupling" formulations, but there is a real difference between a conflict/struggle model and a decoupled, anarchic model. Which is a better fit to "the facts" is an open question.

2. Low interdependence. Many analysts have noted that schools' parts do not seem to need or influence each other. Meyer et al. (1978), for example, assert:

> Schools as districts are not made up of specialized, functionally interdependent components but of relatively distinct and functional[ly] similar ones. (p. 235)

They supply data from 188 elementary schools, in 34 districts. Essentially there are very low rates of agreement in descriptions of policy and practice re the teaching of reading between principals and superintendents, among principals in the same district, between teachers and principals in the same school, and among teachers in the same school. (Example: though teachers' and principals' answers on number of teacher aides in the school correlated .93 with those of teachers, the figure was only .09 when the issue was how often reading-group membership changed over time.) (The weaknesses of agreement among teachers do appear to be genuine: Meyer et al. found that teachers who were working as members of teams had higher agreement on such matters as cross-grouping for reading, use of materials, and the principal's degree of influence.)

And even though Lortie (1975) claims that district central offices

provide limits and boundaries for school functioning, Meyer et al. found only weak agreement between superintendents and principals, even on such specific matters as how frequently schools are evaluated by the district office (r = .45, accounting for only 20% of the variance).

Packard (1977) suggests that teachers operate according to a "basic rule...only one teacher will supervise a given student in a designated subject area at a time," and cites data from Charters (1975) which suggest that this holds true even for teaching teams which are nominally interdependent.

Low interdependence does not seem to lead to anarchy (Meyer & Rowan, 1977; Willower, 1979), and it is dubious that the "garbage can" model of Cohen et al. (1972) (fluid participation of decision-makers, "solutions looking for problems," etc.) applies to schools in the way it may to universities. As Meyer et al. (1978) suggest, the institutionalized aspects of schools supply some stability and predictability. But, on balance, the operations of teachers, departments, grade levels, and schools within a district do not seem to share a common fate: when a role occupant fails to do something, or succeeds in doing something, the implications for others are minimal. As a clincher, we might note that Abramowitz et al. (1978) found that in larger, more complexly structured high schools, interdependent structures (such as rules, meetings, personnel evaluation or collaborative arrangements) were not more frequently found than in smaller, simpler schools.

It can be variously argued that low interdependence in schools is a good thing (it permits innovation and protects the organization against the spread of failure in a particular part); that the "undifferentiated cellular structure (Lortie, 1977a) permits, somehow, a "federation of effort"; or that it retards

knowledge utilization (Fullan, 1980). These claims are more difficult to assess than the basic one of low interdependence itself.

3. Low surveillance and control. Many assertions and some evidence support the idea that the core technology of schools is not scrutinized by anyone with power to alter its operations. (Students see teaching all the time, but their right to supply feedback or counter-influence is very much in doubt.) As we have noted, Meyer & Rowan (1977) suggest that "inspection, evaluation, and control of activities are minimized" as institutionalized organizations like schools seek to "protect their formal structures from evaluation." Hawley (1975) makes a similar claim. Packard (1977) notes:

> Administrators have been associated with responsibility for supervising teachers. This broadly shared misconception is held by administrators, students, and others. The fact of the matter is that elementary administrators rarely supervise teachers....Secondary administrators probably do not display any greater proclivity to supervise teachers. (p. 24)

Packard does cite supporting data for these conclusions, and also quotes a number of studies concluding that:

> ...administrators rarely intercede in classroom affairs, especially in ways that serve to alter and standardize teacher behavior. While we lack evidence on the subject, one would guess that...school principals are rarely, if ever, supervised by their organizational superiors, and that they may vary as much in their behaviors and attitudes as teachers do in their separate classrooms. (p. 32)

We can also note the previously cited finding (Abramowitz et al., 1978) that 55% of high school principals studied said they were in classrooms once a month or less. Department heads, who might be expected to observe teachers more closely, actually participated in teacher evaluation in only about 25% of schools.

So teachers, freed from inspection, supposedly have a good deal of discretionary power over what happens in the classroom. The question of whether they actually do (or are indeed hedged in with strong cultural/institutional expectations, and/or rule-bound specifications of what they must do, when, where, and with whom) is, as we have seen, somewhat ambiguous.

It should be said in passing that the presence of low surveillance and control need not at all imply administrative indifference or irrationality. Meyer and Rowan stress the presence of a "logic of confidence and good faith" as an essential feature of an unmonitored enterprise. And Lortie (1977a), following Thompson (1967), suggests that schools, like most organizations, need to buffer their core technologies from close external inspection. Administrators who seek to protect teachers from parental criticism and pressure are, in a real sense, in a better position to do so if they themselves know little of what is actually going on in the classroom.

4. Teacher isolation. The natural concomitant of low surveillance (whether or not it is accompanied by low control) is isolation. Teaching, as Charters & Packard (1979) point out, has classically been a solitary undertaking; since the early 60's, Lortie (1977a) has argued that the "egg-crate" architecture of the school and its one-teacher-one-class deployment pattern has led to a situation in which teachers are "time and place bound--during working hours, they have very little physical mobility and few occasions for joint undertakings." Lortie also speaks of the "privatizing"

that such isolation engenders, the idea that teaching becomes more and more a performance shaped by the unique aspects of particular teachers.

Lieberman (1979) and Lieberman & Miller (1979) also make a case for the idea that teaching becomes, over time, a more and more personalistic, idiosyncratic (and therefore variable) matter.

Packard (1977), citing Meyer & Cohen (1971) and Pellegrin (1976), suggests that teaching is essentially "idiosyncratic specialization":

> The similarities that exist in the behavior and attitudes of teachers even in the same school seem to be more a result of local, informal socialization processes and common professional training experiences. What has consistently surprised classroom observers are the differences in classroom management, particularly how teachers develop different tasks for themselves and their students, and how they distribute time among them. (p. 32)

Paul (1978), in his review of studies of change, reached a similar conclusion:

> Teacher autonomy, lack of interdependence among teachers, vague educational goals, and satisfaction based on student rather than adult contact act together to promote a classroom-centered orientation. (p.48)

Packard et al. (1978), in their longitudinal study of 450 teachers in 29 elementary schools, 16 of which were implementing the IGE version of the multi-unit plan (involving team teaching and collegial decision-making), found that, prior to implementation of the IGE approach, only about 6% of decisions about instructional processes were made collegially; most were reserved for individual discretion. That can be seen as a measure of teacher autonomy, but its correlate might well be isolation.

In summary, the available evidence suggests that schools are places where there are discontinuities of influence as among various participants, relatively low amounts of required interdependence, rare occasions of direct viewing (or control) of work performance by superiors (or peers), and a fair degree of isolation from adult contact. So the evidence is strongly weighted toward the "flexibility," not the "coordination" born of the dilemma.

Claimed antecedents. What might presumably generate such phenomena? They do appear, in fact, to be relatively durable. Packard et al. (1978) found that the IGE program--an innovation essentially aimed at increasing teacher interdependence--did, over a two-year period, increase the proportion of collegially-made instructional decisions from about 9% to 18%, and the proportion of teacher-deployment decisions from 30% to 43%.[19] Yet 62% of instructional decisions were still made by teachers at their discretion, and 36% of deployment decisions were still made by the principal alone. Packard et al. also remark that the response to the IGE innovation "seemed to hinge upon immutable characteristics of the schools" (such as low interdependence, uncodified, decentralized control, and cultural definitions of "teacher work") more than upon the change strategies employed. They also noted that "within-school participation in instructional interdependence seemed to be highly spontaneous and voluntaristic," with "little stability

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[19] Drawn from graphic displays, pp. 180-81. Note that schools who were about to adopt IGE had a 9% rate of collegial decisions, while "control" schools had only 3% (thus the 6% figure above).

in the work relationships among teachers."[20]

This finding is also echoed by Deal & Celotti (1977), reporting on the Stanford studies of open-space elementary schools:

> ...teacher collaboration is highly unstable over time. Teams form, dissolve and reform with variations in membership over even a two-year period...teacher teaming constitutes a very fragile set of relationships, particularly where teams are large, or where team members are highly interdependent in the sense that they engage in the joint teaching of classes or assume joint responsibility for students. (p. 11)

So, closely-coordinative relationships tend to be precarious, as if more-flexible solutions to the dilemma we are considering are somehow more "natural" or inherent." What explanations might be offered?

1. Legitimacy maintenance. Meyer & Rowan (1978) argue that schooling, "the bureaucratic standardization of ritual classifications," needs to maintain its legitimacy in the larger society it serves, and thus de-couples its work structures from its actual activities and outcomes. The decoupling, they suggest, is helpful in many respects: (1) it increases commitment (because avoidance of inspection implies trust and the "logic of confidence"); (2) it permits judging education "ceremonially," by how much is spent for it rather than what it does; (3) it softens the impact of "uncertainties arising in the technical core"; (4) it permits adaptation to internal conflict among conflicting programs and roles. Basically, they

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[20] In additional data analysis, Charters and Packard (1979) conclude:

> We found only four instances throughout all of the schools that approximated the highly intensive collaboration indicative of genuine team teaching...[IGE was] ...a diffuse encouragement for teachers to seek out collaborative relationships--an encouragement to which some teachers acceded and some did not. (p. 26)

They provide a comparative analysis of collaboration in their data and those from the Stanford study, where levels were higher (because, they speculate, the Stanford collegial arrangements "evolved" rather than being installed as part of an externally-generated program).

claim, legitimacy is purchased by assurance that "ritual classifications" (definitions of what a teacher, a student, a course, a school is) are being maintained effectively.

2. Custodial function of schools. Spence et al. (1978) offer a sharply-countering explanation. First, they argue that so-called "loose coupling" phenomena are merely "administrative inattention to differences that don't make a difference, which are to be found in any regulatory system." Increased alienation in organizations (ex: inability to tell whether an action is useful or meaningful; personal detachment from work) induces a situation where

> the willingness and ability of teachers to teach and even the time allotted to teaching activities becomes attenuated until custodial processing becomes the primary concern and activity of schools. Under these circumstances teaching activities appear to be abstractly "free" or independent of administrative surveillance. (p. 24)

Spence et al. propose the "opposite" of the Meyer-Rowan formulation, suggesting that

> schooling is justified to the community by the myth of providing the service of teaching while custodial activities are actually pursued under conditions of systemic deception. (p. 24)

From this standpoint, low coordination of instructional activities is simply a natural spinoff from the idea that custodial control is what matters, and is what schools are held accountable for by their environments.

3, Domain conflict. Following Kouzes & Mico (1979), we might speculate that weak coordination is a way for public human service organizations to cope with the fact that they must combine the claims of three different domains: the political, resource-allocating one; the managerial one; and the professionalized service-delivery one. Tight interdependence would

only exacerbate conflict, and since educational goals are ambiguous and the production function uncertain, it makes most sense to settle for a world in which appearances are accepted, the pain and energy costs of confrontation avoided, and the best judgment of the professional closest to the problem honored.

On the face of it, there do not appear to be historical explanations for weak coordination in schools; there are no abrupt discontinuities where self-contained classrooms were mandated, or evaluation of teaching forbidden. In fact, one might say that the early "scientific management" movement toward "efficiency" in education could, in view of the evidence presented here, be seen as a vain effort to move against something "inherent" in educational systems--though it did succeed, as we have seen, in entrenching the role of administrators).

Knowledge gaps. What puzzles, uncertainties, gaps are there here?

1. Model fitting. It remains quite unclear what sorts of organizational models are the best "fit" to schools as they are: if standard bureaucracy is not the best bet (as seems likely), what is better: conflicting role and interest groups? various versions of decoupled "anarchies"? the "sect" with a charismatic leader? the professionalized, highly-autonomous "hospital"? Praise is due Firestone & Herriott (1980), to Meyer et al. (1978), and to Abramowitz et al. (1978) for their efforts in this direction; many more such studies are needed.

2. Implications for knowledge utilization and innovation. High-flexible and low-coordinative systems should, in principle, permit safer, more vigorous (faddist?) but localized use of expert knowledge, experiments by those most interested, and so on. They should also, in principle, be

more resistant to internal diffusion and institutionalization of improvements. Miles, Fullan & Taylor (1978, Vol. III) found that school systems successfully using organization development (OD), an interdependence-increasing strategy, were more likely to adopt specific instructional innovations. But we need more studies relating interdependence to utilization of knowledge, and to innovation more generally.

3. Teacher "autonomy." Analysts seem to vary quite widely as to whether teachers are possessed of much autonomy or little. There is little doubt that surveillance is minimal, but do teachers have real control over aspects of their lives that matter in school improvement? The inquiries will not be simple: the issue of the inattended "cage" teachers supposedly find themselves in must be examined. As in the IGE studies by Packard et al. (1978), we can probably gain a good deal by examining situations where deliberate efforts have been made to increase teacher control/autonomy.[21]

4. The meaning of isolation. Much is made of the fact that teachers see few other adults during the working day, and that this "privatizes" teachers (perhaps making them more child-like to boot), heightens idiosyncrasy, etc. Not much is really known about this, or about the degree to which children serve to ward off the teacher's psychological isolation, act as surrogates for peers, serve as agents for socialization/resocialization, etc.

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[21] Charters & Packard (1979) suggest from analysis of their IGE data that teacher autonomy is

> the resultant of countervailing forces--an autonomy-enhancing force emanating from the ability of teacher groups to influence educational affairs of the school and a strong, autonomy-depressing force from the principal's control of the teacher's classroom performance. (p. 30)

They tie this finding to Meyer & Cohen's (1971) conclusion that sheer freedom from interference must be accompanied by ability to control resources, if autonomy is to be experienced.

Dilemma 4: Environmental dependence vs. autonomy

We turn now to three dilemmas faced as schools confront their environments. The first such dilemma revolves around the definition of the school as reactive, controlled by its local, state or Federal surroundings, or as proactively seeking to pursue its own purposes as one of many actors.

Regularities noted. What conclusions have typically been drawn here? As we have noted earlier, schools have both immediate (local community) and distal (state, regional, Federal, professional, commercial and legal) environments. The discussion here begins with the local setting.

1. Domestication. That schools are "tame," owned by their environments is perhaps as much a high-level, stipulatively-driven inference as an empirical observation. Carlson (1964, 1965) suggested the concept, deriving it from the idea that public schools cannot choose their clients, and its clients cannot choose not to participate. Put the other way up, a steady flow of unselected clients, and of funds, is assured, with the supply of neither depending closely on system performance. The inference can be drawn that schools are environmentally dependent--but since for most consumers they are "the only wheel in town," they can afford a certain amount of autonomy. Thus the picture is ambiguous. As Sieber (1980) points out, though schools' survival is for practical purposes guaranteed, they must compete to some extent for students (whose parents may or may not move into the community, may or may not decide to pay for private schooling) and for faculty.

On balance, however, most analysts lean toward a "domestication" view. Gallaher (1965) speaks of the "surrender to clients," suggesting that school

functionaries are not really legitimated to specify goals for schooling, and must accept lay control. Lortie (1977b) says, "Schools are 'bound in' to their publics in a particularly intense way," since they must seek financial support directly from their clients, and get trapped in "foreshortened planning" because of short-run budgeting in local communities. Herriott (1979) notes further that local cultural climates constrain school innovation efforts, suggesting that there is less range of tolerance for change in rural settings.

2. Quasi-monopolistic position. But as noted above, the fact that there are real practical constraints on student (or parent) exit makes for a certain independence on the school's part. Furthermore, as Meyer & Rowan (1977) note, alternative and private schools must conform quite closely to regulations that constrain what a "school" must be like, and may thus offer no more than marginal advantages to a consumer thinking of shopping around. So schools may have more room for autonomy than they characteristically choose to exercise. Bale (1977), for example, found in a study of the adoption of The Electric Company, a children's TV show, for regular viewing in school (N about 7,500 elementary schools), that local environmental characteristics (ex: disposition to innovate, suburban location, turbulent environment) contributed almost no variance to measures of various stages in organizational change, from problem diagnosis through adoption. It can be argued that this particular innovation was non-disruptive to community expectations (parents had doubtless seen it at home), but even so, the idea that there is room for autonomy remains worth entertaining.

We should note that the "monopoly" issue also relates to the question of boundary permeability, a topic we shall turn to shortly.

3. Popular support. Domestication notwithstanding, the typical school superintendent spends a good deal of energy in placating the board which represents the districts interface with the surrounding community, coopting it if possible (Kerr, 1964). Though actual survival is never at issue (note that even in the direst of fiscal crises in New York, Cleveland, and Chicago, the idea that school itself would cease to be was never really entertained, even by the most apocalyptic commentators), the quality of survival (especially in an environment of declining resources) be problematic. Struggles for resource maintenance and acquisition, however, obscure what Meyer and Rowan (1978) have pointed out: that schools are:

> a network of organizations that has grown rapidly for many decades, that obtains huge economic resources in a stable way year after year, that is protected from failure by laws that make its use compulsory, that is constantly shown by surveys to have the confidence and support of its constituency, and that is known to have high levels of job satisfaction among its participants. (p. 89)

So here too it seems worthwhile to question the conventional wisdom that schools are embattled, without friends, and necessarily in a dependent position toward their immediate environments. It is correct, as Paul (1977) points out in his review of change studies, to conclude that serious community opposition to specific innovations can easily block those specific changes. But the idea of school, of schooling, never is seriously questioned, Illich to the contrary.

Schools also have complicated, not-well-understood distal environments. Two regularities can be noted here.

4. Decentralized constraint. As Wayland (1964) has pointed out, American schools are embedded in a large and complicated quasi-system that is nominally decentralized, but exerts clear constraints on local action. Many "ancillary" structures, outside the legislative, judicial, and political system affect schools, including materials vendors, professional associations, test producers, accrediting and certifying bodies, private colleges and

universities, and R & D producers. Though in many national educational systems such structures are part of the official establishment, in this country they operate apart from it. For example, though there is no American ministry approving textbooks, there is indeed a narrowly-constrained national textbook market, which is driven by (and ministers to) the fact that 20% of Americans move their place of residence each year.[22]

Corwin & Edelfelt(1978, esp.pp.25-33) detail the importance of interaction among the large array of organizations in the educational arena, and note that

> at best, local communities must share the governance of their schools with many groups at all levels of government and in the private sector (p.32)

They suggest that the bases of authority in play vary considerably (traditional, expert, legal, and charismatic): "thus, it seems, that almost anyone can claim some formal "right" to control education." Such control is never really unilateral (even in the case of "veto groups, influence is exercised to prevent action, not to initiate it). Corwin & Edelfelt suggest that the multilateral nature of environmental influence in fact provides more autonomy (increased options) for alert, assertive local actors.

Though, as Halperin (1980) points out, Federal and state decision-making on educational policy is a highly fragmented, factionalized, de-controlled, multi-level, multi-participant process without any central direction, it would be a mistake to assume it is only a "mess" or a disordered interorganizational field. He suggests that the interaction of Congress, the executive branch, and educational interests may look as if

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[22] Textbook content is also disproportionately influenced by the fact that several large states (e.g., Texas) make statewide adoption decisions; publishers' natural conservative response to this fact illustrates well the interaction between ancillary and formal structures.

it is in "permanent disarray," but his analysis implies there is some coherence, and suggests the diversity-protecting functions of messiness, which may need only marginal"tidying."

5. Increased regulation. A number of analysts agree that local schools have become more fully regulated by Federal and state legislation over the past two or three decades. Federally-mandated changes (ex: PL 94-142 on providing "least restrictive environments" for handicapped children; Title IX on sex discrimination; Title I of ESEA, and a wide range of desegregation rulings) are accompanied by state-level initiatives on accountability and competency-based testing. As Kirst (1980) notes, about half of all state monies (currently boosted by inflation) are spent on education, and most state departments of education, partly through Federal support, have "increased their staff and analytical resources dramatically." Halperin (1980), too, points to a substantially increased regulatory role for the Federal government, abetted by what he calls "legislative and judicial activism."[23] Boyd (1978) notes a "remarkable recent growth of the influence and authority of state and national (both federal and nongovernmental) agencies over the curriculum." (p. 579)

These formal regulatory activities (see again Kirst) are also stimulated by national informal networks (for example, those persons and organizations interested in furthering the competency-based testing movements, or school finance reform). Kirst suggests that local boards and superintendents are experiencing a "decreasing zone of discretion,"

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[23] We should note with Halperin (1980) that Federal and state agencies also influence local schools in many non-regulatory ways; he suggests stimulation through categorical aid; research and development; service and technical assistance; general financial aid (support of operating costs); and "moral leadership," emphasis on priorities and goals. In many respects, such functions may have even more impact than direct regulation on local districts. See, for example, Herriott (1979).

squeezed as they are between federal and state mandates and the demands of staff bargaining organizations. More harshly, Wise (1977) considers that the country is heading toward an "unplanned, de facto" national system of education, built along narrowly rationalistic lines.

Against this view we should naturally juxtapose that of Berman (1978) who points out the intensely long and vulnerable chain of processes that intervene between Federal policy formulation and the implementation of change in local schools. So from the Federal end, influencing schools seems difficult, even hopeless; from the local end, there are clear threats to autonomy.

Some of the local sense of "loss of control" is real, and some probably ideologically driven, since schools are "supposed" to be locally controlled. As Lieberman (1977) notes, schools are still undoubtedly the most-influenceable American institution as far as citizens are concerned; Dalin & Rust (1979) have similar views, when comparisons with European educational systems are drawn.

To summarize: the evidence presented here, much of it rather general and impressionistic, suggests that schools facing the environmental dependence/autonomy dilemma lean toward the sense of being "domesticated," perhaps under-utilizing the resources for autonomy which their quasi-monopolistic position and general public support offer. Against this must be placed the fact of local schools' existence in a constraining, complex suprasystem that is only imperfectly understood, and from which emanate increasing amounts of regulation and control--a good deal of which can be evaded or redirected, without doubt.

Claimed antecedents. What might explain these regularities?

1. Education as a state/local function. The American Constitution classically reserves education to the states, which in turn have delegated their power to local communities. Thus the idea that schools "belong" to their local communities, which used to (and in most states still do) supply the major portion of revenues. But states can take back informally-delegated powers, a natural response when they are supplying more and more of the money for schools.

2. Compulsory education. We have reviewed the genesis of legislation requiring school attendance earlier, and discussed its internal consequences for the school (batching, control orientation, etc.). As Carlson (1964, 1965) suggests, a community that mandates something called "education" for all children naturally needs a "tame" institution to handle the job--and there is no point in making its survival problematic.

3. Normal children as clients. The fact that schools have temporary possession of valued, immature persons is probably a strong force for local control, and environmental dependence, on the part of the school. Furthermore, these persons return home each afternoon with more or less explicit news of how they have been treated. Note that prisons, correctional homes, mental hospitals, and hospitals--all people-processing institutions--do not face similar problems, and can operate more like "total institutions" (Goffman, 1961).

Lortie (1977b) comments as well that schools actually have multiple, sometimes conflicting clients: students and parents are the most obvious, but employers, colleges, the military, and other governmental agencies also have client-like claims to make, reducing schools' autonomy further.

4. Development of the establishment. We have already (p. 13) described

Boyd's (1978) view that the historical centralization, consolidation, and rationalization of the educational macrostructure which began in the 1900's has, paradoxically, increased local autonomy, via "loose coupling" across levels, so that almost any change advocated from outside the school can be in fact vetoed, explicitly or implicitly. The autonomy is thus of the "power to say no" variety, rather than that of pursuing one's own objectives.

Knowledge gaps. What do we need to know in this domain?

1. Local "latitude" for action. This discussion has suggested that schools may not be exercising as much choice toward their local environment as they in fact have space for. Any decision situation can, of course, be seen to contain broader options than those taken, but studies of unnecessarily self-limiting behavior by schools might be instructive.

2. Correlates of proactiveness. School districts vary rather widely in how they resolve the dependence/autonomy dilemma. Some, for example, make up as much as a third of their budgets from Federal and state "soft money," rather than passively complaining about "loss of control." What determines such behavior: an entrepreneurial superintendent? the presence of a grants officer? And what are its consequences? Would Berman & McLaughlin's (1978) finding re the dubious aftermath of "opportunistic" grant-seeking be replicated?

3. Cognitive mapping of the environment. Superintendents and other district officers must act toward their immediate and distal environments with some more or less explicit image of what is "out there." Some of this has been accomplished for local settings, but we have little or no information on how the larger educationally-relevant world is seen, how differentiated

such views are, and in what respects they correspond to the actual "territory."

More generally, it is not at all clear just how the environments of schools can be best characterized (e.g., as a mixture of "placid" and "turbulent" types (Emery & Trist, 1965; Berman, 1978). What general descriptors of environments (cf. Jurkovich, 1974) are most relevant for schools?

Dilemma 5: Environmental contact vs. withdrawal

This dilemma focuses on boundary management: should the school as an organization be permeable, open to influence (along with resources) from its environment--or self-protective, resistive, successfully buffering its operations from unwanted input?

Regularities noted. Analysts have pointed to several features in this domain.

1. Vulnerability. As we have noted, the concept of vulnerability is a loose one; various writers seem to mean alternatively the presence of effective external influence (thus a "thin skin" for the organization), the predictability of that influence, and the insecurity of role inhabitants presented with influence attempts. Freeman (1979) seems tacitly to adopt the "thin skin" definition:

> School districts are vulnerable to outside criticism because it is difficult for them to demonstrate their effectiveness and because there are almost infinite alternatives which can be advocated by various interest groups. On the other hand, the critics cannot affect change easily because they cannot make a strong enough

> case. The anarchical tendencies of educational organizations can be used to thwart them. But school districts, being public organizations, are particularly vulnerable when they must request support from outside agencies, as they frequently do in seeking tax increases through the electoral process. (p. 121)

Both Sieber (1968) and Miles (1967) mention vulnerability as a prominent characteristic, but leave the term loosely defined as effective influence. Tumin (1977) speaks of public visibility and control:

> the public school is perhaps more publicly controlled and financed than any other major social institution, and its actions are often more highly visible and subject to public scrutiny. That means that one is literally living in a fishbowl part of the time when one is teaching. (pp. 50-51)

Most generally, the term is usually taken to refer not just to any external influence, but to influence which is somehow disruptive, damaging. As Pauly (1978) points out, most school administrators are especially eager to avoid situations of conflict and disruption, since their own career advancement depends essentially on recognition by others that they have maintained smooth, effective relationships with their immediate environments. Lortie (1977b) points out that the superintendent's short-term contract makes the occupant of that role especially personally vulnerable, and cites supporting research.

2. Buffering. An obvious solution when disruption threatens is that of strengthening the boundary between school and local community. Hawley (1975) suggests that this is often accomplished through the "myth of professionalism," and the invocation of technical authority; see Gold & Miles (1978) for a case study of the conflict that erupted when parents defined themselves as educationally expert, and stood in opposition to teachers' advocacy of an open-space school. Boyd (1978) conceptualizes

buffering as the creation of a "zone of tolerance" around the school's operations, into which there is reasonable consensus that the public will not penetrate. Packard (1977) speaks even more concretely:

> administrators also have the responsibility to control the access of outsiders to the classroom and the school, and generally to see that uncertainties do not arise in the work process. More specifically, administrators are expected to monitor the entry, passage and exit of parents and other non-members of the school...[entry check-in, guards, locks]. Parent access is also controlled by encouraging their entrance only at "down times" or under conditions of high preparedness [special theatrical, musical and athletic events, parent conferences, etc.]... attention is directed away from class activities. (pp. 23-24)

Lortie (1977a), too, gives particulars:

> educators, and particular classroom teachers are ambivalent about such public participation...most teachers seem to want parents...to be "distant assistants" who help outside the school setting. (p. 11)

He notes:

> There are, moreover, identifiable conflicts between the minor themes of professionalization and citizen participation: if those who do not work in schools are not "laymen," how can teachers, they wonder, be "professionals"? (p. 11)

And he details the need for buffering core processes:

> public involvement can, under certain circumstances, prove disruptive to classroom performance. Teachers...need to create a jural order with children from different families, to set up a rule system which is universalistic and outside kinship membership. Unless parental claims are held in check, they have the potential to tear apart that carefully-constructed small society; special consideration for some can threaten the whole. Nor can teachers work well if constantly challenged by persons with special outlooks; imagine teaching social studies...while a student tape-records one's words for the John Birch Society or a militant member of a minority group paces back and forth across the room. (p. 129)

Miles (1978), in a longitudinal study of the creation of two open-space elementary schools, found that the principals' ability to defuse protest and

buffer the innovative teaching processes being tried was critical to success; in contrast, a principal of another open-space school who permitted easy community access (Gold & Miles, 1978) encountered severe conflict and lost his job.

3. Weak parent and citizen participation. As Berman (1980) notes, even in programs where citizen involvement is Federally mandated, the "evidence is overwhelming that parents and community members are seldom involved in innovative efforts." Similar findings have been noted for the case of curriculum development by Shaffarzick (1975). In the Abramowitz et al. (1978) study of high schools, parent and community groups were mentioned by principals as being "usually involved" in a range of decisions from adding courses to formulating school goals less frequently in some cases than were elected or appointed groups of students (ex: on the issue of adding courses, the figures are 23% and 18%; for adopting student behavior rules, 49% and 30%; on "bigger" issues the figures are reversed, but not strikingly so (on formulating school goals, students 33%, parents 38%; developing a budget for the school building, 3% and 5%). Across seven issues, parents are mentioned at a 17% level and student groups at 19%.

Michaelson (1977), looking at the large picture back of data such as these, says flatly:

> As a general solution, community control [of schools] will not be able to overcome the structure of incentives inherent in the bureaucratic form of school organization under representative government. (p. 242)

And in speaking of "accountability" schemes that might involve rewarding teachers according to some reasonable estimate of achievement of realistic goals for students, Michaelson asks, "Is there any hope for such a plan?

He answers:

> I think not. Consider that administrators will have the power and indeed the responsibility to make the judgments the accountability schemes require. Clients can enter the process only to the extent that administrators and teachers permit them to do so....In California, the recently enacted teacher evaluation law...provides teachers with the right to participate in and bargain for the standards that are to apply in each individual case. As a consequence, the law has left the basic bargain between administrators and teachers undisturbed. Personal observation reveals no significant change in teaching performance attributable to the law... (p. 243)

As a further exhibit, we might examine the case of voucher plans, originally proposed as a counter to schools' quasi-monopolistic "guaranteed survival" (hence nonresponsiveness to parents/citizens). To date the only implementation of a voucher plan has occurred in Alum Rock, California; it was limited by the California legislature to alternative schools within the district (thus leaving local funding untouched). Analysis by Bass (1978) and Thomas /(1978) suggests that even this emasculated version succeeded not because of citizen pressure, but because principals saw a chance for increased power and autonomy.

Furthermore, a recent campaign to place a voucher plan on the ballot, amending the California constitution, failed. Its advocates, a coalition of economic conservatives and political liberals, claimed (New York Times, December 30, 1979) that the financial costs of obtaining voter signatures were prohibitive (a position which implies less than rabid popular support). They discounted the bitter opposition of professional education groups, which ranged from charges that the idea would lead to chaos, was unconstitutional and would be expensive and impossible to administer, to dismissal of its proponents as "well-meaning fools" (New York Times, August 4, 1979), and

reasoned analyses (Burcham and Cohn, 1979) claiming that the idea would increase racial segregation and, in any case, result in little increase in parental influence vis à vis the usual coalition of superintendent, central office staff and board. On balance, it appears that this opportunity to redress the power balance did not succeed, in part because of the very weakness the proposal was designed to correct.

Finally, we should note the thoroughgoing research on citizen participation carried out by Gittell et al. (1979). According to a summary from the Institute for Responsive Education, the sponsoring agency:

> The authors found...that low-income community organizations have changed: advocacy has become service as broad-based movements have become narrowly-defined organizations. They have had to forsake the strategies which build power. After more than a decade of government initiatives and mandated organizations, the authors comment, "the nature of citizen participation has changed," and that change has not always been for the better:
>
> > ...in fact, advocates of citizen participation have more reason to despair now than they did ten years ago. Citizen organizations have little influence over the educational decision-making process.

Similarly, Huguenin et al (1979), writing as part of the same study, cite eight different studies concluding that

> the one thing these numerous parent and community organizations have not been successful in doing...is to exert influence on the decision-making process of schools. (p.3)

The picture here is one of cooptation; the shift can also be explained by the large amounts of energy (and financial support) required to maintain a strong voluntary citizen advocacy organization, and the resistance of educators who said that "they were already receiving the necessary input" from Federally-mandated advisory committees, which the study found "had the most direct access but the least influence on school policy."

Coming as they do from an organization (IRE) deeply committed to citizen participation, these conclusions re weak citizen/parent influence gain added validity.

Claimed antecedents. What might explain the observed regularities we have outlined: vulnerability of schools, extensive buffering and protective attempts, and weak parent and citizen participation? Why, in short, might schools so frequently resolve the boundary dilemma by making it less permeable?

We may, of course, invoke the same explanations just offered for the dependence/autonomy dilemma, particularly those of the tradition of local control and compulsory education. There are several other possibilities:

1. Avoidance of disruption. Perhaps all organizations do seek to buffer their core processes, have them occur backstage, so to speak. The presence of influence from persons external to the system, who do not understand its technology, is unlikely to contribute to organizational efficiency, the reasoning goes (cf. Lortie, 1977a).

2. Weak production function. Freeman (1979) suggests a causal chain. The technology of learning is poorly understood, so districts and schools

> rely upon teacher professionalism and essentially decouple levels in the hierarchy. This makes educational organizations particularly subject to outside criticism so that principals, superintendents, and school boards are much involved in public relations in which procedural rationality is stressed because substantive rationality is impossible. (pp. 120-21)

The idea here is that vulnerability (and hence buffering) is heightened because of technical uncertainty; educators are unable to ward off critical attacks with confident and unquestioned experties.

3. Self-defeating Federal policies. The prescriptions for improvement of citizen participation by Huguenin et al. (1979) of IRE contain an explanation couched in terms of the unintended effects of Federal policies mandating citizen participation. They note proliferation and competition among mandated "advisory committees"; emphasis on funds and numbers of participants rather

than organizational structure; and inattention to the local community context. Such factors, affecting lower-class groups most, hindered still further their ineffective influence as compared to independent middle-class advocacy groups. However, the authors also acknowledge that the internal structure and operations of local school systems are also crucial:

> Unless concurrent changes are made in the way schools are set up, especially in points of access, official lines of communication, and places where decisions are made, community organizations have no hope of exerting influence.

4. Vested interests of educators. More pointedly, it seems likely that school people's protection of their own financial and professional interests is a primary driving force, as noted in the California voucher initiative failure. We might also quote Michaelson (1977) who here is considering what might happen if schools were really "community-controlled":

> Community-controlled schools will, like other public schools, receive their budgets as direct institutional grants from a legislative body...administrators and teachers will enjoy superior access to the processes of this body and would be able to retain their present secure position. (p. 242)

More basically, Michaelson, as we saw earlier, sees the creation of compulsory education as the basic means by which educators protected their interests (and now maintain them):

> Full tax support and compulsion firmly established the power of common school administrators and, in a different way, teachers over parents and children. Indeed, they created the essential conditions for insulating school management from citizens generally; namely, the assurance of a budget independent of satisfied consumers. (p. 236)

Knowledge gaps. What inquiries would be useful here?

1. Parents' influence at the "micro" level. It is possible that parental influence over school operations, rather than appearing through political, citizen-like channels, occurs more subtly, either through expectations addressed to the child, who behaves in such a way (when aggregated

with many other children) that school personnel accommodate; or through support or criticism which is teacher-specific, addressed to particular behaviors (and, if luck has it, the general policies and procedures bearing on such behaviors). Inquiry here would help.

2. Models of "constructive" involvement. We concur with Lortie (1977a) that parent participation and "professionalism" need not be mutually exclusive, and that situations where they have proved mutually furthering, or supportive of school improvement should be examined. Emphasis should be as much on norms, climate, negotiated relationships, and the chronology of participative efforts as on the structural arrangements, judging from Huguenin et al.'s (1979) critique of "mandated" structures.

Dilemma 6: External expertise-seeking vs. self-reliance

One more dilemma involves the school's relation to its environment: should specialized, expert knowledge be sought from outside the system, or will locally-available information be not just sufficient, but indeed preferable?

Regularities noted. As Sieber's (1980) extensive review shows, how schools solve this dilemma represents a very complex set of issues. The reader is referred to Sieber, and to the thorough discussions by Fullan (1980) and Louis (1980b) for much fuller treatments than we can offer here. In general, however, we can very briefly note the following:

1. Infrequent use of formal external channels. Sieber (1980) quotes Paul Hood (source unspecified): "Generally, the local, easily accessible, and typically personal sources are used in preference to more distant,

inaccessible or formal sources" [of expert knowledge]. Base rate data on knowledge-seeking behavior are very hard to come by, if only because (in principle) of the bewildering variety of external resources to which school personnel could (again in principle) turn at almost any point during the school day (or when anticipating the next one).[24]

Aoki, quoted by Fullan (1980) found that teachers rated other teachers highest as sources of help and information. District staff were seen as moderately useful. But external sources of knowledge (department of education, unions, and university consultants received low ratings.

Havelock et al. (1973) asked a national sample of superintendents about locally-implemented innovations. In describing a "showcase" innovation (the most significant one during the preceding year in the district), 55-67% of superintendents (depending on district size) mentioned that teachers had been involved in adoption/implementation; the figures for principals were 26-49%. By contrast, outside actors were rarely involved (ex: outside companies, 2-6%; universities, 3-9%). When asked about "resources" that had been utilized, respondents mentioned predominantly internal resources (ex: teacher discussions, 48%; curriculum supervisor, 35%; research and evaluation office and staff, 34%). Some sample mentions of external resources were close to this level (state educational agency, 32%; university, 28%; various Federal programs, 11-20%). But others were substantially less frequently mentioned (ERIC, 11%; regional laboratories, 6%--both resources charged with active knowledge utilization).

Hood et al (1976), in a survey of 1,328 information users, including 628 building-level practitioners, found that 60% of teachers said they would go to (as first, second or third sources) to teachers

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[24] Note that the issue being addressed here is not whether educational practitioners seek knowledge or are resistant to doing so (as Hood and Blackwell (1976) show, 30% of teachers, in any given year, seek information about new methods, and 40% do so for instructional materials), but what the relative balance is between external and internal resources.

in their own district; 47% said principals; and 28% mentioned other local personnel. "Colleagues in other organizations" were mentioned by 16%, and experts or authorities fared little better (19%), along with information service personnel (22%). Other external services (external libraries, professional organizations, state or Federal agencies, ERIC) typically ranged from 3 to 15%). Interestingly, local school libraries were mentioned by 37%.

Such patterns can in part be explained by the reasons offered for preferring certain sources: the top-ranking items are "is likely to have the information I want"; is near at hand or easily accessible", "is responsive to my particular problem or question, "is easy to use", "is usually available when I need it." Thus reliance on local resources is "rational", not necessarily driven by "resistance" to external expertise. But we should note that criteria such as "objective, impartial, not biased" appeared at the bottom of the list, and "is authoritative, accurate, reliable" ranked only 9th among 15 items.

Sheer "frequency-of-use" data (very highly correlated with received "usefulness") showed that the highest-ranking sources of information for school practitioners in connection with their "most important" work activities" were "face-to-face discussion or conferences with people in my own organization", "notes and files in my own office", "personal library", and other local items. But we should also note that fairly high rankings were given to "educational journals", "curriculum materials", "textbooks, reference books"; these along with the "personal library" and "notes and files" items suggest active retrieval of expert information, but locally stored and available. Still scoring at the bottom of the array were "technical reports, government publications", "other libraries, resource centers or information services", and "abstracts, indexes,

bibliographies". "Conventions and professional association meetings", and "face-to-face discussion or conferences with people in other organizations" fare only slightly better. Again, it appears that distance and "externality" are inhibiting factors.

Paul(1977), in his review of change studies, concludes, at a "firm" level of confidence that:

> Teachers work best with and rely most on fellow teachers in information sharing and collaboration for change.....fellow teachers have more credibility and are able to elicit greater trust and reduce discomfort.(p.40)

Furthermore, he concludes, with somewhat less confidence:

> Teachers will tend to rely on their own experience for curriculum ideas rather than use curriculum guides prepared by central administrative staff, ideas from principals, or ideas from university courses. (p.41)

Paul speaks not only of teacher resistance, but of the need for overload protection, and for warding off "difficult,esoteric, or unworthy techniques" as explanations.

2. Presence of "non-instrumental" incentives. Sieber (1980) concludes, with extensive documentation, that a very wide range of incentives (and disincentives) exists for "seeking external knowledge" beyond the narrowly instrumental (e.g., "solving educational problems"). He mentions, for example, general "enlightenment," along with internal forces such as district-career advancement, esteem, legitimation, overload avoidance, and relief from boredom, and external forces such as coercive power, money, and the need to be responsive to the local community in exchange for support. Similarly, Deal (1979) comments on purposes for knowledge-seeking and utilization other than use in change or reform, including successful re-labelling of old practices, excitement, myth creation, and the marshalling of community support through the presentation of "appearances." Perhaps

it is stretching a point to call such listings a "regularity"; the general issue, however, is that many political and personal features affect the resolution of the dilemma we are considering, and that "expert knowledge" is not necessarily sought (or rejected) for its own sake alone.

3. Quasi-professionalism. Professionals are usually defined as persons working from a well-formulated knowledge base, with defined competence standards and a set of ethical guidelines; entry to a profession is restricted, and depends on completion of specified training.

A number of analysts consider that teachers do not meet the definition above. Sieber (1968) terms them "quasi-professionals," pointing out that they work from a very weak knowledge base; Lortie (1975) uses the label "truncated professional" (1977b), and notes that though they have high discretion and job security (features often associated with professionals in other organizations), they exercise little collegial power, and "the individual teacher has limited ability to shape his or her own daily work." Hanson (1975) concurs, speaking of "semi-professionals," and concluded that a "hospital" model of organization (clearcut delineation of administrative and care-delivery functions) did not apply in the detailed case study he conducted of five schools in one district.

Teachers, of course, bristle at such labels, claim a strong knowledge base (in spite of a great deal of ambiguity about the consequences of alternative teaching methods) and argue (in spite of evidence that teaching attracts the lower-performing portion of college cohorts, typically requires no competency test for certification, and provides few rewards for good performance) that they deserve full legitimation as a profession.

But note a recent controversy (New York Times, July 13 & 31, 1979) over whether teachers should be licensed as professionals in New York State. For any given field, a state Professional Practices Board, composed of experienced practitioners and public members, sets entry requirements, specifies credentials and competencies, and defines a code of professional ethics. "Professionals" range from doctors to landscape architects and providers of massage ("Actually," said the chairman of the Regents' committee on professional education, "what we have is about a dozen professions and 18 occupations with good lawyers."). But though the state commissioner and the New York State United Teachers were pressing strongly for the formal move to license teachers as professionals, supported by the Regents ("If such changes can be tied to the quality of teaching..."), there were apparent snags: fears about union domination of the move and, in fact, resistance from organized teachers to (a) the continuing education requirement that is associated with relicensing in many professions; and (b) the idea of a code of ethics, on the grounds that teachers are (or should be) well supervised ("If there is an incompetent teacher, that means that the supervisor is not doing his job."). As the Regents' representative noted, "They've got to realize that when they assume the benefits of profession, they have to meet all the requirements as well."

This case is perhaps not fully representative; for example, several states and a number of universities are developing or using competency-based entrance requirements for teachers. But, on balance, it seems likely that the "quasi-professional" label is not inaccurate, and we might expect less use of external expert knowledge and more reliance on internal resources as teachers engage in practice.

Claimed antecedents. What might account for the regularities listed above?

1. Weak knowledge base. As Sieber (1968), Miles (1967) and others have noted, reliance on own resources (and operation as a quasi-professional) may well be driven by the fact that knowledge on teaching processes and their consequences is lacking. De facto weakness may be intrinsic (few means-ends connections have been established, as Stephens (1967)/document and Averch et al. (1972). Or it may be that the knowledge is poorly synthesized and assembled (a claim made plausible by Glass & Smith's (1979) recent "meta-analysis" techniques, which when applied to class-size research (a literature supposedly full of no-difference findings) discovered some meaningful regularities, such as the fact that (for well-controlled studies in particular) there was a clear relation between class size and achievement, with steadily greater achievement for class sizes under 20.

Or knowledge may be inadequately transformed into teacher-usable form (whether it is derived from scientific inquiry, or from a distillation of "craft")(Cohen, 1977). Knowledge base weaknesses, to the degree they exist, are probably exacerbated by the complexity and non-routineness of the task of "social control combined with socialization," as Sieber (1980) points out. Presumably a massage-provider or even a landscape architect could get away with an objectively "weaker" base, given simpler tasks.

2. Structural aspects of teaching. It is claimed that "quasi-professionalism" is at least in part caused by the "non-staged" character of teaching (Lortie, 1975; Sieber, 1980): neither upward mobility nor increased financial reward is present, so commitment to the "profession" is low.

It is also argued (Lortie, 1975) that teaching itself, because of its

isolation and steady exposure to children, induces traits of "individuation, presentism, and conservatism," none likely to encourage use of external expert knowledge. More generally, it is sometimes claimed that since teaching is an extremely familiar process to all adults (who have experienced it on the receiving end for 10,000 to 15,000 hours) it is a "demystified" process with little expertise attached. It is difficult to assess the merit of these claims, in part because one can note the comparatively higher status of teachers in most Western European countries, though the conditions and extensity of teaching are quite similar.[25]

3. Modernity. Finally, there is a perverse sense in which educational and social development itself discourages the use of expert knowledge from outside local systems. This comes clearest when one notes that Havelock and Huberman (1978), reviewing the experience of educational innovation in developing countries, stress that there is widespread use of external assistance (largely as a consequence of awareness of lagging educational practice, and a lack of prior experience with innovations and innovative process management). When innovations are a dime a dozen, and offer only the probability of a marginal advantage (rather than the putative benefits of nation-building), ho-hum reactions might be predicted.

Knowledge gaps. In the general area of incentives for knowledge utilization, Sieber (1980) has offered such an extensive and differentiated list of topics for inquiry that adding others seems hardly necessary or even advisable. But in the domain we are concerned with (common properties), the following might be suggested.

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[25] A more reasonable claim, made by Fullan (1980) is that teacher isolation simply makes access to external information sources more infrequent and difficult. He also points out that Sieber et al. (1972) and Emrick (1977) both found increased rates of external knowledge utilization when external change agents are available to the school.

1. Utilization base rate studies. It does seem that we need better information on actual seeking/utilization of externally-available knowledge by people in schools (as contrasted with retrospectively-reported questionnaire responses). Such studies should certainly examine "utilization" in "enlightenment" and "non-instrumental" terms, as well as in terms of "school improvement," "problem-solving," and "capacity-building."

2. Correlates of utilization. As the reader has doubtless noted, many if not most of the "regularities" we have noted are not fully "common" in any sort of generic or inherent sense. Not all teachers are isolated, some schools have strong parent participation, some outputs can be measured quite well, and so on. Rates of use of externally-available knowledge (or its rejection in favor of local resources) should, for example, be examined for more and less "professionalized" teachers;[26] for fields where good knowledge syntheses are available or lacking; for districts which have "master" or "lead teacher" roles and those who do not.

Dilemma 7: Feedback-seeking vs. intuitive/routine action

This dilemma, too, focuses around sources of information used to guide action. Should people in schools collect explicit information on the con-

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[26] Such studies will also have to face the question of what expert knowledge is being utilized. Daft and Becker (1978), in their study of innovation adoptions in 13 suburban high schools, found that professionalism (as measured by proportion with Master's degrees) was positively correlated (r of .65) with the adoption of innovations for college-bound students, but insignificantly with adoption of innovations for terminal students. Even so, they found that more-professionalized teachers were more likely than less-professionalized ones to initiate both types of innovations. For highly-professionalized teachers, the probability of initiation by them (rather than by administrators, or a teacher-administrator coalition) was over .9; for less-professionalized teachers, the figure dropped to less than .6.

sequences of action, to guide reformulation and next steps, or can operations proceed largely on the basis of "feel," or through standard operating procedures with a life of their own?

Regularities noted. Certain themes recur in this domain.

1. Labor-intensiveness. It is often noted that the bulk (usually 80% or more) of any school district's budget goes to salaries. Buildings, equipment, materials and machines form a minor portion of expenditures. It follows that the technology of learning is, as House (1975) points out, "people-vulnerable" and very much dependent on their characteristics and skills. Similar comments are made by Berman (1978) and Elboim-Dror (1970).

2. Immediate client response as data. Since the delivery of teaching/learning "technology" (the quotes connote its "soft" character) occurs, as Berman (1978) suggests, in a "bilateral" setting, the information teachers use to guide action is typically short-run characteristics of interaction, such as level of student interest, obedience, or smooth classroom functioning (cf. Lieberman, 1977). Data on the outcomes of teaching strategies (see below) tend to be used less frequently for steering purposes, it is suggested. Spuck (1974) believes, with some empirical support, that so-called "intrinsic" rewards, such as social interaction with students, pride in workmanship, and teachers' agreement with school goals and policies, carry more weight than do supposedly instrumental rewards (the fact that students have learned).

3. Lack of output control. Meyer & Rowan (1978) suggest that

> ...a striking fact about American education at all levels is that student achievement data are rarely used to evaluate the performance of teachers or schools. (p. 82)

They cite the finding that only one of 34 superintendents surveyed reported

using standardized achievement data to evaluate schools in his district. But we should also note that the NEA's national teacher opinion poll (Teacher Education Reports, 1979), found that 80% of teachers said they had used group standardized test scores within the past three years Still, only half of the respondents thought that the tests helped their teaching, diagnosis of individual learning needs, etc., and said that "most of the really important aspects of student progress are not measured by tests."

Is the issue only a technical one? The proceedings of a recent work conference on research on testing (Tyler & White, 1979) take that view, suggesting that existing measures are too narrow, culturally biased, insufficiently criterion-referenced, etc. Niedermeyer (1979), too, argues that the problem is one of mismatch or non-alignment between expected outcomes, actual instruction, and assessment information. He reports research showing substantial learner gains when a laboratory-developed reading program with good "alignment" among these three components was implemented, and asserts that

> school districts in all types of locations will be able to document impressive instructional accomplishment, regardless of the backgrounds or social characteristics of their pupils. (p. 5)

But that claim cuts both ways: school districts will also presumably be able to document resounding failures, or as is more typical, little difference in comparison to ordinary practice.

The Meyer-Rowan claim that output control is nearly absent seems extreme, in view of the fact that some cities (New York, Chicago) require an annual public report of reading test scores by school, and that a number of states are instituting minimum-competency tests as a graduation requirement. But even so, the likelihood of close output control seems minimal. As Boyd (1978)

comments:

> The trouble begins when the illusion breaks down that this can be simply a technical process. To manage and be accountable for educational outcomes requires that the goals and objectives of education be specified. In the absence of a widespread consensus on these goals, this raises the politically sensitive question of who will set them. And even if a set of goals can be agreed to comfortably, in the absence of a highly developed science of education, the selection of the best means to achieve these goals remains highly debatable. Because even the best-known means (instructional or curricular) are far from successful with all students, teachers and administrators understandably are reluctant to be held accountable for educational outcomes. Thus, they are inclined to resist accountability schemes and to seek to protect the degree of professional autonomy they traditionally have enjoyed. (p. 605)

4. Weak self-monitoring capability. As Wheeler (1966) notes:

> The fact is that most socializing organizations must operate and act in the absence of data that bear in a patent way on the effectiveness of their programs. (p. 104)

The qualifier "must" suggests Wheeler's view that the problem is an "inherent" one. In any case, he notes the tendency to use "any convenient variable" to assess performance, and to resolve differences over the merit of alternative treatment strategies via power struggles rather than through examination of documented information on consequences. Other analysts (Hawley, 1975; Boyd, 1978) similarly point to lack of reflexive mechanisms for classroom (or indeed building or district use). Though most larger districts have offices for research and evaluation, it appears relatively rare for their resources to be devoted to self-study in any sense that will seriously affect ongoing operations. Deal (1975) suggests that, more generally, "evaluation" is rarely used directly for performance improvement or local decision-making (though it is typically required as a condition for refunding of special programs). Even when supposedly feedback-seeking programs such as

"diagnostic-prescriptive instruction" are employed, the picture changes little. Intili & Deal (1977) found that only 26% of teachers using such programs utilized students' skills and interests in planning instruction on at least a weekly basis; furthermore, the programs themselves, which are designed to be revised on the basis of feedback, are only infrequently improved by teachers: 31% do not revise at all, and the majority do it on a two-year cycle.

Various technologies for school-building and district level self-study and improvement exist: as early as the mid-60's it was shown that "survey feedback" could be used productively with schools (Miles et al., 1969); Deal (1975) makes the same case. But such self-study methods have not diffused widely in schools: Miles, Fullan & Taylor (1978, Vol. V) concluded that organization development programs (of which survey feedback is a special case) had spread to only about 1% of American and Canadian school districts, though their current users were very much satisfied with the results. The prospects for diffusion of other school or district-level self-study schemes, such as Scriven's School Evaluation Profile (Hood, 1979) do not seem substantially more promising.

Claimed antecedents. Various explanations have been offered for the regularities noted above (which add up to the general view that schools, as a labor-intensive enterprise, rely largely on what might be termed informally-collected process data, rather than outcome information, and

lack capability[27] either at the level of individual practitioners or systems, for self-study and improvement).

1. Input variability. Wheeler (1966) claims that inputs (ex: students, teachers in our case) are so variable for all socializing organizations that it is nearly impossible to assess outcomes and tie them with any certainty to treatment processes. School people hold this view too, as we have seen in the discussion under Dilemma 1; they attribute poor performance, however, mainly to student variability rather than their own.

2. Goal vagueness. As we have noted earlier, there is a reasonable case to be made for the idea that educational goals are inherently diffuse and hard to measure. Thus, developing feedback systems becomes in turn very difficult.

3. Complex operations. Lortie (1977b), following Thompson (1967), suggests that schools employ a combination of "mediating" technology (that is, operations which bring together persons to meet their diverse needs), and "long-linked" technology (operations requiring a certain degree of sequencing over time), less than "intensive" technology (focus on idiosyncratic processing of individual cases). It can be argued that such a blend is unusually hard to track and steer in any systematic sense. Sieber (1980), too, emphasizes the complex, demanding nature of the combined socialization and social-control task that faces teachers confronted with large numbers of compelled clients.

Furthermore, there is at least some evidence (Rutter et al., 1979) that school outputs are as much a function of complex organizational pro-

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[27] Or, will? The author is reminded of the case (Miles, 1978) of a principal in a new elementary school, who when offered the chance to discuss systematic survey data with his faculty for purposes of stocktaking and self-improvement, said:

> That would be like going into a patch of poison ivy and lifting up each leaf to see what was under it.

cesses (e.g., norms supporting high expectations by teachers) as they are of what specific teaching strategies are followed. More complications.

4. Weak production function. A number of authors (Berman, 1978; Boyd, 1978; Freeman, 1979), as we have seen, claim that the basic cause of weak self-monitoring, lack of output control, etc. is that no reliable information exists on how teaching strategies are associated with outcomes. The claim seems to rest on syntheses such as those by Stephens (1967) and/ Averch et al. (1972), but probably deserves more detailed examination. It is probably "inherently" true that the causal links between, say, physical or chemical operations and outcomes are stronger than those for the person-transforming domain, even if we allow for the fact that the physical sciences have been in/ business longer.

5. Disconnection of operations and outcomes from rewards. As we have noted, at the individual practitioner level, good performance (in the sense of output achievement) by teachers (and, it should be said, administrators), does not seem to be tied to financial rewards, or to career advancement. This is partly due to the "non-staged" nature of teaching (Sieber, 1980), and partly to reliance on substitute indicators of performance (e.g., avoidance of non-smooth system operation, for administrators).

We should also note, as does Packard (1977) that the same decoupling occurs at the school district level:

> schools do not exchange their products for economic or other raw materials. Stated differently, the money that schools receive is not contingent upon the acceptability of their product. (p. 6)

Knowledge gaps. What are some nominations for inquiry in this area?

1. "Alignment" among outcomes, instruction and assessment. The findings at SWRL reported by Niedermeyer (1979) deserve careful replication.

The issue, however, is not just whether such close coupling will lead to improved student performance (largely regardless of level of student input, as Niedermeyer claims), but whether such a system (a) remains institutionalized in user schools; (b) can easily diffuse to other schools.

2. Studies of the educational production function. The widely-made claim that we do not know with much certainty what educational interventions lead to what outcomes deserves careful attention. Meta-analyses of the very large body of "methods" research studies would be an economical start.

3. Barriers and aids to the diffusion of self-study technology. A number of studies are currently under way on how local school districts use evaluation information. These might be amplified by examination of what has retarded and aided the diffusion of survey feedback (or OD more generally). The advantage of such technologies is that they characteristically go substantially beyond the sheer reporting back of data to utilization through corrective action.

Innovations which have carefully-defined "classroom management" systems attached to them (as do many of the basic skills programs available through the National Diffusion Network) might also be examined rather closely to see whether (and how) they alter teacher decision-making about instructional strategies. And do such innovations diffuse more slowly or rapidly than those with weaker self-monitoring capability?

Dilemma 8: Centralized vs. shared influence

This dilemma focuses on the exercise of influence in schools: should leaders of subsystems (teachers for their classes, principals for their

buildings, and superintendents for their districts) take central and primary responsibility for making decisions, or should the consent and influence of the led be acknowledged in more-collaborative arrangements?

This is an old question, and one which has seen much discussion in the organizational literature of the last twenty years; cf. McGregor's (1960) delineation of "Theory X" (traditional, dominative, mistrustful mapping of organizations) and "Theory Y" (modern, collaborative, trustful ideas). The ideological flavor of much that has been written on the topic, in and out of schools, is pronounced. There is a very scattered and sprawling literature, which cannot possibly be encompassed in this brief synthesis effort. Our focus must be on the common properties (if any) which schools have in this general domain.

One additional note. Social systems, from small groups[28] to societies are hierarchically organized; the distribution of power (and associated benefits) is lopsided. "To them that hath shall be given" stands as a universal description of social life, though reformers of every age have decried it. The question, in short, is not whether influence is centralized in social systems--it always is--but how centralized it is.

Regularities noted. What generalizations can be drawn about common properties in this domain?

1. Low influence by students. We have already reviewed evidence bearing on this under Dilemma 1, under the heading of goal displacement and "control orientation." We might add here some data from the Abramowitz et al. (1978) study of high schools. When principals were asked which of a

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[28] For the classic review, which shows how informal groups (which might on the face of it seem to be the best bet for a collaborative, shared-influence model) develop hierarchies of participation and influence quickly, see Riecken & Homans (1954).

number of roles and groups were "involved in making decisions" relating to a range of school issues, students as individuals were usually lowest on the totem pole (ex: for the issue "determining course objectives," 80% of principals said that they themselves were involved; the figures for other roles were teachers as individuals, 83%; department heads, 59%; assistant administrators, 34%; guidance counselors, 22%; student groups, 10%; and students as individuals, 9%). (Parents were also mentioned 9% of the time.) And even on an issue where students might be expected to have shared influence--adopting rules for student behavior--the figures are: principal, 96%; school board, 74%; superintendent, 70%; teachers as individuals, 55%; assistant administrators, 51%; student groups, 49%; students as individuals, 24% (parents, 30% on this issue).

2. Zoning of decisions. We have already alluded (under Dilemma 3) to the idea of "influence discontinuities," the presence of partially-overlapping zones, spheres, or domains of influence where decision rights tend to be arrogated to particular roles. In terms of our present discussion, one can note that the degree of centralization in schools is not monolithic, but depends very much on the issue at hand (cf. Downs & Mohr, 1976).

For example, in Packard et al.'s (1978) study of 29 elementary schools, "teachers as individuals" made nearly two-thirds of all "instructional" decisions (those on teaching methods, materials, scheduling, etc.). In the sample's non-IGE schools, traditionally organized, over half of decisions on "deployment" issues (pupil assignment to classes, teaching assignments) were made by principals; such decisions were more likely to be made collegially/jointly in IGE schools). And about half of "systemic" decisions (such as curricular areas, textbook adoptions, and methods of reporting to

parents) were made outside the school (typically, in the central office); the figure for IGE schools was about 40%.

Similarly, Daft & Becker (1978), examining the initiation of innovations, found that teachers in their sample of 13 suburban high schools initiated 70% of instructional innovations, principals 8%, superintendents 9%. Shared initiation (collaborations) occurred 12% of the time. By contrast, when administrative innovations (student scheduling, school structure, program budgeting) were considered, superintendents initiated 45%, principals 22% and teachers only 13%; collaborations accounted for 13%. (Students started only 1% and 4%, respectively, of each innovation type.)

3. "Local" centralization. The Abramowitz et al. (1978) data are instructive in pointing out another feature: that the chain of hierarchy, when a range of seven key issues in schools are considered, does not necessarily go monotonically up through the central office. The involvement of students as individuals averages 13%; student groups, 19%; department heads, 45%; individual teachers, 53%; and principals, 90%. But central office administrators hover around 33%; superintendents 63%, and school boards 50%. Of course, the figures for principals are undoubtedly inflated by the fact that the principal was filling out the questionnaire, and the idea of "involvement" does not specify who has what scale of decision power.

Another set of items in the same study, however, shows that 77% of principals have "complete" or "considerable" authority to allocate budget among departments; 65% enjoy similar authority when the issue is allocating money to aides vs. teachers; 43% do so for deciding on budget allocations to their own school; and 56% say they can choose to fill teacher vacancies, with usual endorsement by the central office. The picture is one of centralization of

power at the principal, not the central office level, along with some principal-central office sharing.

In passing, traditional structures seem typical in the 1,428 high schools studied: "school policy or planning groups" were mentioned as being involved only 20% of the time, across issues.

We might speculate, as researchers have for other sorts of organizations, that "mirroring" occurs at varying levels of school organization: just as principals exert little direct control over what teachers actually do in their classrooms from day to day, so superintendents have relatively little day-to-day influence over what principals (often identified by school people as "kings," or as being in charge of "fiefdoms") do. As Lortie (1977a) remarks,

> The formal powers of the central office are such that there can be no doubt as to where responsibility lies... No matter how remote the central office may seem to teachers and students...it possesses powers [hiring, firing, promotion, rules, funds, curriculum] which encompass teaching and learning. (p. 4)

But, he goes on:

> ...such dependency and constraint does not mean that the central office is able to enforce its desires at will in classrooms under its jurisdiction, for it is one matter to prevent or constrain action and quite another to give it specific shape. (p. 5)

In any case, if "mirroring" does occur, it seems to stop abruptly when we move to the student level: the teachers who have much latitude within their classrooms (at least as judged by the sort of data just noted) do not seem to grant similar latitude to students.

4. Increasing teacher power. Some observers suggest that the growth of teacher unionization and use of collective bargaining have reduced the

central power of principals and other administrators. That may be so, especially since contractual specifications serve as a constraint on administrator action. But we should note that the principals in the Abramowitz et al. (1978) study mentioned teacher unions and organizations as being involved, on the average, only about 6% of the time, across decision issues. That may represent a veridical view that unions do not concern themselves with "professional" issues, but such an interpretation does not fit with the figures of 12% given for union involvement in "formulating school goals" vs. 1% for "teacher selection" and 3% for 'developing a budget for your school."

Elsewhere in the Abramowitz data we note that 62% of principals say that "the number of persons involved in school decision-making" has increased in the past five years; only 2% mention a decrease. In addition, 52% mention an increase in "joint planning among teachers" (4% see a decrease). Interdependence among departments is seen as increasing by only 17%, however, so the issue is not so much better organizational knitting, but apparently more teacher collegiality (and perhaps mobilization).

5. Shared influence as a support for innovation. "Participation" is a sort of shibboleth in the folklore of school improvement. Giacquinta (1973), however, claims that

> on the basis of the empirical work to date, little can be said about the effects of participation strategies as compared to strategies where administrators introduce change without prior rank and file involvement in the decisions. Furthermore, why participation is important has not been made clear. There are cogent reasons for believing that strategies involving subordinate participation can lead to conflicting demands, exacerbation of differences among members, greater reluctance to try change, and thus less effectiveness. (p.189)

Giacquinta's skepticism can be lauded, but we should note that the "empirical work" he cites has few if any examples of innovation-introduction in educational settings as such.

Paul's (1978) review of change studies cites six reports (five of them in education) that lead to this conclusion:

> Involvement and participation in the decision-making process by those affected by a change program will be beneficial (p.44)

Paul treats this as a "firm" conclusion, but notes that the issue is not monolithic: participation in early stages of a change effort will enable commitment, and increased need-responsiveness of the program. But participation (and the usually associated decentralization) may "inhibit coordination and control which are necessary for the implementation of new programs." (p.44)

Fullan & Pomfret(1977), examining studies of curriculum implementation, provide further differentiation. They, like Giacquinta, feel that available research "tells us very little about /participation/...questions about the nature, timing and scope of participation are left unanswered." But they go on to note that a generalized view of "participation should be recast into "managerial" and "user" perspectives; the former taking a fidelity-oriented, user-resocializing approach, and the latter aimed at adaptation and active decision-making. They conclude:

> There is no evidence that leads us to select one approach over the other, but the following observations seem in order. First, if one is interested in standardizing the implementation of an innovation that has a high degree of a priori explicitness, it can be argued that a managerial/retraining approach is more effective. Second, our assessment of the trend in most recent curriculum reforms is that a priori explicitness is difficult if not impossible, and undesirable, because they usually require a high degree of user input (.e.e., inquiry and self-directed learning). This favors the user perspective as the most effective for high degrees of implementation. (p.381).

Berman (1980) draws a similar conclusion, suggesting that participation is most important for less-structured innovations, where high complexity and uncertainty are typical; he also suggests

that local agreement on the "change policy" (in effect, commitment to the innovation) and the local administrative structure will condition the effects of participation.

Two additional studies that "unpack" the participation issue can be cited. Rosenblum & Louis (1979), in their study of comprehensive, district-wide change efforts in rural schools, found (a) that the more successful efforts were associated with superintendent dominance over both planning and decision-making; and (b) that efforts could succeed with high principal and teacher influence if the superintendent's power was low; but (c) teacher and principal influence was negatively associated with success when the superintendent had high power, suggesting a district/building-level competition. Once again, we are led to the possibility that who "should" participate in a change effort if it is to be successful depends on what the change effort is, and/or whose zone or domain it falls in.

Daft and Becker (1978) have some illuminating findings in this respect. They conclude that

> The districts where teachers propose the largest percentage of educational [instructional] innovations also adopt a greater absolute number of educational innovations ....And the districts where administrators propose the largest percentage of administrative ideas also tend to adopt a greater number of administrative innovations. School districts appear only to adopt a large number of innovations of either type when individuals in the relevant task domain initiate them. (p. 106)

But these processes vary according to the level of teacher professionalism (measured, it will be recalled, by the proportion having Master's degrees). High-professional districts tended to work from the bottom up (93% of initiations of educational innovations came from teachers) and they share initiation of administrative innovations with administrators (47% each). But in low-professional districts, teachers only suggested 53% of educational

innovations, and no administrative innovations, which come, 97% of the time, from administrators. Top-down initiation, under those circumstances, appeared perfectly workable.

Daft and Becker also append one interesting note: the frequency of "collaborative" initiations of educational innovations was least (7%) in high-innovative districts, and most in low-innovative districts (32%). In the high-innovative districts, they reason, "there is little need for administrators to collaborate with teachers," who are taking initiative already. The so-called "collaborations" in the low-innovative districts appear to be (co-optive?) accompaniments of greater administrative initiative in a low-professional setting.

The Daft & Becker findings, even though they may be restricted in generalizability from their suburban high school setting, and by the fact that the sample was of implemented innovations,[29] are useful in reminding us of the contingencies among innovation domain, level of professionalism, and the direction of innovative pushes.

We might note one further recurrent finding in the "shared influence" realm. One of the best-documented (or at least most widely-acclaimed) generalizations about change efficacy centers on the question of "support" from superiors. (See Sieber, 1980, for a summary and analysis.) Fullan (1980) also reviews these findings, and suggests the importance of "active" support (not just "naive endorsement" and not "direct imposition"). The label "support", surprisingly enough, has usually remained undefined, but we might note for our present purposes that its affective overtones, and the usual connotation that some sort of assistance or help is involved serve

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[29] Daft & Becker note with some interest and amazement that though the school personnel interviewed identified 414 different adoptions of 68 different innovations, there were "only half a dozen instances...where the innovation was proposed but not adopted." The alternatives of forgetting, selective proposing of likely-to-succeed innovations, and low rejection rates for any innovation are mentioned, but not clearly evaluated by the authors.

to obscure something important: a principal who is "supporting" is probably accepting a good deal of influence from teachers in the process: s/he is attending to their goals, accepting them as worthwhile, and construing their needs for assistance as legitimate. The force of this argument can be assessed by looking at its converse: it is quite unlikely that a principal who is mandating a change or using coercive power will be seen a "supportive." Mutatis mutandis, the same applies to the superintendent, who is equivalently seen in the literature as needing to provide "support" at the district level.

In summary, this review suggests, with somewhat less certainty than for preceding dilemmas, that "centralization" in the tried-and-true sense familiar to students of organization does not quite apply in schools. Students (and parents) have low influence, teachers have much more (and their influence may be increasing), and principals may have most of all with the central office making background and constraining decisions. In any case, decisions seem to be very much "zoned," with teachers, principals, central office personnel (and presumably boards) specializing in particular areas. In this sense, many decisions are not "shared" in the collaborative sense, but in effect farmed out (and/or negotiated among) to different parts of the system. Finally, though there is some evidence that shared-collaborative influence is associated with implementation of change, that relationship too is conditioned by innovation type, by stage of the process, by decision zoning, and by teacher professionalism. (The length of this summary, indeed, suggests the lumpiness of our conclusions.)

Claimed antecedents. Once again, it is not at all clear that we can be very crisp in identifying explanations, perhaps becasue the "regularities" identified above have in fact appeared more "variable" than regular. However:

1. Compulsory attendance. We have already outlined the view (Willower,

1970) that the presence of large numbers of immature, perhaps unwilling, students leads to a strong control orientation.

2. Managerial professionalization. The growth of specialized administrative roles, particularly those of superintendent and principal), was, as Michaelson (1977) notes, supported as much by the creation of compulsory attendance laws as by the infusion of the "efficiency" movement in school administration.

3. Domain conflict. Again following Kouzes & Mico (1979), we might speculate that the inherently conflicting demands of a publicly-controlled policy-making sector, a bureaucratically-oriented managerial sector, and an instructionally-oriented service delivery sector make for the sorts of "vertical decoupling" noted above. Note that the historical feature of local control probably sharpens such conflict over its "natural" levels in a centralized macro-structure such as those in most European countries.

4. Democratic ideology. The importance of participation in change may be partially driven by the idea that the governed ought to have the right of consent. One is reminded of the early and successful experiments in "overcoming resistance to change" (Coch & French, 1948) through group discussion and decision, which failed of replication in a Norwegian factory where it happened that workers did not regard their participation in managerial matters as legitimate.

Knowledge gaps. What might be studied more fully in this domain?

1. Contingency analysis of "participation." We clearly need to know more about the conditions under which participative approaches are essential or unnecessary in change efforts, connecting them with innovation type, stages of the change process, professionalism, and possibly community context (note that the Rosenblum & Louis (1979) findings may well be limited to rural settings).

2. Processes and effects of shared-influence structures. It is clear from the Packard et al. (1978) studies of IGE and traditional schools that the multi-unit structure, in part a method for increasing shared influence, does not have striking effects in that direction, though some shifts are evident. (Their findings may have been conditioned by the "brief" two-year time line of the study.) Similarly, "policy and planning groups" do not seem to be mentioned very frequently by principals in the Abramowitz et al. (1978) study when they are asked who is involved in decisions that affect the school. There is the possibility (the case for the conservative) that such structures are in effect "counter-generic," working against what is somehow "natural" for schools. It would be very useful to understand more about their genesis in particular schools, their process vicissitudes, their consequences, and their survival over time.

Dilemma 9: Change vs. stability

Our last dilemma is perhaps the first and most basic, from the point of view of knowledge utilization and school improvement. Should people in schools choose new and different means for accomplishing goals, or stay with the tried and familiar? Should, indeed, any efforts at "improvement," whether marginal or fundamental, take place? Perhaps most effort should be going into stabilization of what is known to be working well. The dilemma of change vs. stability--reform vs. consolidation, liberal vs. conservative, Yin vs. Yang--is one of the oldest in human affairs, and it cuts across, underlies, the eight preceding dilemmas.

Once again: this review cannot possibly encompass the large and rambling literature(s) in and out of education devoted to innovation,

planned (and unplanned) change, utilization of new knowledge, diffusion, dissemination, technology transfer, and similar topics. We will aim to focus on what might be "common" in this domain when the local school is examined in its context.

Noted regularities. What generalizations, possibly related to schools' common properties, have been made in this domain?

1. "Non-rationality" toward innovation. Some analysts suggest (having in mind such issues as goal diffuseness and measurement difficulty) that there are no real incentives for schools to adopt supposedly efficacious innovations available in the environment. Pincus (1974) suggests that financially costly innovations may well be adopted to promote the appearance of modernity, efficacy, etc.; financially costly innovations rejected are likely to be those involving high bureaucratic costs (disruption, energy). Sieber (1980), though he criticized Pincus for ignoring current economic pressures, had earlier (1977) noted a study showing that innovations rated by judges as "less effective" and more difficult to implement (e.g., TV and programmed instruction) were frequently adopted, perhaps for symbolic reasons ("up-to-dateness"). DeArman (1975), studying the adoption and abandonment of 33 innovations by 3,271 high schools, found an adoption average of 9.7, and an abandonment average of only .76, suggesting either very rational adoption processes or symbolic ones. Complex, expensive, and administratively difficult innovations were abandoned more frequently. Both teacher resistance and poor student outcomes were cited as reasons for abandonment.

The question of "non-rationality" is hard to ask and answer precisely. (For example, assuring the continued flow of resources to an institution is not exactly a non-rational activity, though it may dictate actions that do not (say) benefit children directly.)

2. Local adaptation. Much has been made of the idea, advanced by Berman & McLaughlin (1974), that innovations and school organizations engage in a sort of mutually-influencing interaction: the school bends, revises, selects from, and adds to the innovation so that it can be effectively fitted to the local situation, and in turn supposedly alters itself (if only by the addition of the innovation).

But the Rand studies themselves make it clear that "mutual adaptation" is actually quite rare, and that what the authors called "cooptation" is much more frequent: the school changes minimally, and the innovation substantially. Mann (1978), speaking of the Federal "change agent" programs at work in schools, says:

> All projects [Vol. III, Rand studies] displayed a clear and similar pattern of adaptation. With the passage of time they:
> (a) became less ambitious about the system-wide efforts they sought; (b) simplified their treatments; (c) slowed the pace of their activities; (d) decreased the amount of changed behavior expected from any individual; and (e) decreased their expectations about how many people in a site could be changed. (p. 12)

Berman, who originally labeled the phenomen "mutation," says (1980), with thorough documentation,

> The interaction of an educational innovation with its setting (i.e., its implementation) generally results in changes in the initially-conceived innovation. (p. 18)

In a more extreme version of this view, Farrar et al. (1979), considering the use of Experience-Based Career Education, a complex work experience program, propose that any given innovation has the potential for meeting so many diverse needs of so many diverse internal and external audiences in the school (the image suggested is that of people attending a garden party) that the process of "adaptation" is multilateral and evolutionary; all parties to the enterprise try to understand what they want, and to get it, and the meaning and nature of the innovation is

diversely viewed in a changing way over time. Innovations, in this view, are not much more than a sort of vehicle (or even projective screen) for the transactions of people in and around the school.

Not surprisingly, such findings have led to a good deal of pessimism as to whether educational "technology" (that is, instructional or administrative innovations developed outside the school) can in fact be "transferred" (House, 1975; Mann, 1978). Against this we should place what appears to be the relative success of the National Diffusion Network (Emrick et al., 1977), and the R&D Utilization Project (Louis, 1980a), both efforts to bring new technology to schools, via change agent-supported efforts at stimulating awareness, adoption, training and implementation.

The message of both these studies is that something like technology transfer is indeed possible. For example, Louis (1980a) notes that in the R&DU sample of over 300 schools, 80% of teachers eligible to use the product installed with linking-agent help were doing so, and that 64% of principals said it had been incorporated into school curriculum plans; 62% predicted extensive future use. Furthermore, characteristics of the product itself (its validation, its complexity, and its pupil-affecting nature) were especially strong predictors of institutionalization and organizational change in a sub-sample of 55 schools.

The NDN Reporter for November 1978 claims that 5,800 to 7,000 "deep-rooted adoptions" of over 200 different educational programs had occurred since the founding of the NDN in 1974.

The mismatch between empirical results and claims like these on the one hand, and pessimism about local change in schools on the other may have several causes: (1) the Rand and Farrar et al studies emphasized more-complex, less-"thing-y" innovations than most of those in the

than most of those in the NDN and RDU pools; (2) the NDN adoptions, at least,

are not in fact "deep-rooted", and would show up weakly on what Downs & Mohr (1976) call the "extent of adoption" (commitment, institutionalization, internal diffusion, etc.); (4) NDN adoptions may have included a large amount of local adaptation (or as in the case of the RDU projects, choice and/or redesign of non-validated products). Continuing analysis of the RDU data, and the new data being collected by the Study of Dissemination Efforts Supporting School Improvement (Crandall, 1980) should shed some light on these competing explanations.

3. "Slow" innovation rates. The tacit corollary of "local adaptation" is the view that schools, as such, are changing only slowly, if at all. A number of observers have suggested that schools are notable for their resistance to change. We have already noted Morrish's (1978) lengthy diatribe headed "Why schools change so slowly." To this we might add Elboim-Dror's (1970) view that educational decision-making is characteristically "tradition-bound, slow and incremental," and Hawley's (1975) view that all the common properties of schools lean them inexorably toward "rigidity," defined as centralization, standardization, routinization of relationships with clients, and lack of changefulness. Most recently, there is Blumberg's (1980) confidently-titled chapter "School organizations: a case of generic resistance to change," in which he claims that a "siege mentality" and "ontological insecurity" induce a strong "commitment to smoothness" in schools, with an associated value system stressing loyalty and the maintenance of "peace". The result, he asserts, is acceptance of "first-order" changes (part-innovation, in effect), and rejection of "second-order" (system-changing) intervention. It is difficult to assess the merit of these claims; no empirical data beyond a few examples are offered.

If the tone of the preceding paragraphs communicates skepticism, then they are being understood. Sieber (1980) makes a case against the "myth of a stagnant educational system," suggesting that change rates in

elementary and secondary education have been substantial, especially when compared with other public-sector systems (and even with industrial ones, except perhaps for those with a high-technology emphasis). He lists the wide range of innovations that have been adopted, from desegregation through language labs to teacher centers, and cites (without providing detail) several "national surveys" (e.g., Havelock et al., 1973); Abramowitz et al. (1978); Nelson & Sieber, 1976). The problem, however, is that (a) such data are non-comparative: we do not know whether schools are any more or less likely than other sorts of organizations to welcome change; (b) they are ahistorical: we do not know whether change rates have accelerated or decreased since Paul Mort's famous "50-year lag" dictum, pronounced in the 1940's.[30] Furthermore, cross-study comparisons are not easy: when Havelock et al.(1973) note that superintendents reported something over 9 innovations, on the average, for the 1970-71 school year, is that commensurable with Brickell's (1964) finding that New York State districts he surveyed in 1961 had adopted (and kept), on the average, 4.2 innovations since 1953?

So, on balance, the verdict on "slow" innovation rates must remain "not proven."

4. "Weak" internal change capability. It is sometimes asserted that schools do not have internal change-supportive roles or mechanisms in place as part of routine operations. For example, the development of internal cadres of organizational-improvement consultants (Schmuck et al., 1977) is quite rare; in-service training is widely conceded to be super-

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[30] One can make crude inferences: for example, in the Abramowitz et al. (1978) study, we can note that 36% of schools receive funds from Title IV-C, a support for innovative programs; or that 27% include courses on environmental or ocean studies (typically not present ten years ago, one assumes); or (alternatively) that 93% use traditional methods of scheduling, and 84% A-B-C-D-F grading systems. But such inferences remain not much more than guesswork, in the absence of comparative and historical data.

ficial and unhelpful (Rubin, 1971), not to mention infrequent (Abramowitz et al.'s (1978) principals reported an average of only 4.8 days a year (about 3% of working time) devoted to in-service training; most assistant superintendents for personnel do not think of their role as being that of "human resource developer," as they might in an industrial setting; research and evaluation departments in large city systems seem rarely to carry out the research and development function, in the sense of creating new products and practices.

Against these claims we must place the finding (Miles et al., 1978) that organizational development programs in school districts were predominantly carried out by line managers (principals and central office personnel), rather successfully, even though they had little formal training for the job; that district office consultants (Fullan, 1980), though often ineffective, can be crucial to the success of change efforts; and the familiar and fairly-well documented view that the support of principals and superintendents is the sine qua non of school improvement. So, as with the preceding "regularity," we need to know a good deal more.

5. Expanding external change resources. Here we are on somewhat more solid ground. It is quite clear that the last decade has seen a very substantial increase in all sorts of externally-generated programs and practices, including categorical grants for innovation (Title III) mandated changes (desegregation, bilingual education, mainstreaming); specific educational programs (on basic skills, career education, early childhood development, environmental education, the arts); extended information storage and retrieval systems (ERIC, Lockheed); the creation of new delivery systems (National Diffusion Network, R&D Utilization

Program) aimed at supporting school districts via "linkers" (professionalized change agents) in accessing promising innovations from pools of available practices, deciding on adoption, and proceeding through implementation; and the availability of funds for local invention and lateral dissemination to other districts (Title IV-C). Partly as a result of these initiatives, there has also grown up a very substantial "evaluation industry" (Bank et al., 1979) with promise for the improvement of school self-study capability, and collaboration with linkers.

The increase in funds and change-relevant staff for state departments of education has already been alluded to; we should also note the increased state dissemination capability supported by Federal initiatives (Madey et al., 1979), the historical shift of more than a few state departments from a "regulatory" to a "facilitative" role, and the development or extension of regional or intermediate service units aimed at supporting school improvement (see Cates et al., 1979, for a review).

Thus the educational macro-structure, as complex, poorly coordinated and constraining as it is, has clearly shifted in the direction of supportiveness toward the "change" horn of the dilemma we are considering.

Claimed antecedents. To summarize, the regularities noted in the change vs. stability domain have included the idea that schools have a "non-rational" stance toward innovation, and that an extensive amount of local adaptation in externally-arising innovations is typical, along with minimal alteration in the school's structure and processes. The question of whether schools are "slower," more "rigid," more resistant to change than

other sorts of organizations (and the associated question of whether school change rates have altered over the last few decades) is ambiguous, though more claims are made on the pessimistic side. Finally, though it is unclear whether schools lack internal change capabilities, the evidence is strong that external resources for change have increased substantially over the past twenty years. What explanations have been offered?

1. Outcome vagueness. Many different authors have invoked the idea that educational goals are intangible and hard to measure (Elboim-Dror, 1970; Hawley, 1975), not least because of the long time perspective involved between educational intervention and ultimate results. (For an exhibit of the causal chain leading from goal vagueness to slow change rates, see the display of Elboim-Dror's analysis, p. 8.)

2. Weak incentive structure. Both slower innovation rates and resistance to structural alteration have been claimed to follow from faulty incentive structures, at the level of individual practitioners (Sieber's (1980) comments on the "unstaged" nature of the teaching career), and at the level of the local school district (Pincus, 1974; Packard, 1977). At neither level are financial rewards connected to outcome achievement; thus the argument goes that there is little reason to consider new, possibly more efficacious procedures.

3. Weak production function. As noted earlier, the idea that little is known about the reliable consequences of educational interventions (whether or not this is in fact the case) is another claimed antecedent for movement toward the "stability" horn of the dilemma.

We might summarize here an analysis by Boyd (1979b), who notes that

current retrenchment pressures do not seem to have led (contrary to what some organizational theory would predict) to innovativeness in schools, but to simple "reduction in scale," "less of the same" strategies. He concludes that "the lack of a well-understood production function" contributes to emphasis on "maintaining educational quality" rather than improving educational productivity, a stance he characterizes as "the symbolic politics of efficiency."

4. Vulnerability. The view that schools are open to damaging inputs from their environments, and that this induces caution and conservatism, appears in a number of versions: Blumberg's (1980) "ontological insecurity" (though his claim that the "very institutional being" of schools is currently being "called into question" seems quite unlikely); Elboim-Dror's (1970) claim that vulnerability leads to local power struggles and submissiveness, hence reliance on routine; Willower's (1970) argument that vulnerability and received pressure on schools generates the need for "impression management" and the tendency to invoke innovations as "ornaments"; and Meyer & Rowan's (1978) view that locally-controlled systems which are charged with formal "certifying" functions tend to decouple instruction from administration and curriculum, and carry out local (in effect, classroom-level) adaptations without disrupting what really matters to their constituencies (the appearance of a stable school).

5. The professionalization of reform. Boyd (1978) has noted the growth of a sort of establishment aimed at educational reform (sited in foundations, the Federal government and universities); we should add to this the substantial increase in stored (and reasonably synthesized) knowledge about knowledge utilization itself, and the development of a

"dissemination community." As Boyd points out, the very development of these vested interests and the complexification of the educational macro-structure may indeed be making change--at least center-to-periphery change--more cumbersome, more difficult, and more unlikely. That claim, however, deserves assessment, as vs. the competing claim that since schools now have substantially more resources--both in terms of new educational "products," and facilitative "process" assistance--to draw on, the likelihood of movement toward the change horn of the dilemma is enhanced.

Knowledge gaps. What does it seem that we need to know here?

1. Base rates of innovation. As we have suggested here and earlier (Miles, 1974) there is a real need to know, on a regular, recurrent basis, what schools are doing in the way of "innovation," "knowledge utilization," and "school improvement." National-sample surveys like those carried out by Havelock et al. (1973) would provide substantial help, especially if they were differentiated enough to examine questions such as: (1) the prevalence of "first-level" vs. "second-level" (system-altering) changes (and more generally, a breakdown of "innovations" according to the attributes of change efforts outlined by Berman (1980)); (2) extensity of local "exposure" to innovations (number of students, teachers, administrators involved); (3) (as with Berman, 1980) the distribution of changes by various contingent conditions (elementary/secondary; stable vs. turbulent environments; urban/rural/suburban settings); (4) the nature and extent of local adaptation; (5) "depth of adoption" variables, such as institutionalization and internal diffusion.

2. The limits to "technology transfer." According to the general perspective (cf., House, 1980) one brings to questions of "school improvement" the promise of knowledge-utilization structures like the National

Diffusion Network and the R&D Utilization Program is either very great or quite limited. It would be helpful to have some rather more-differentiated inquiries into such structures, dealing with matters such as actual amounts of local adaptation, the character of "deep-rooted" adoptions, whether there are classes of innovation, in interaction with local contextual properties, which are especially well or poorly suited to a technology transfer model. Such studies should, of course, be built on the findings from the R&D Utilization evaluation, and the Study of Dissemination Efforts Supporting School Improvement. They should also not be trapped in a narrowly-technological view of the process: as Downs & Mohr (1978) point out, it is unprofitable to consider "properties of the innovation" (or indeed of the organization) in isolation: the proper unit of analysis is the innovation-organization pair.

3. Nature of internal change supports. There seems to be a good deal of ambiguity about mechanisms and processes internal to local schools that support movement toward the "change" horn of the dilemma. We will not try to duplicate here the suggestions offered by Fullan (1980), but merely note that studies of such domains as in-service training, internal cadres, the role of principals and central office staff, linkage between insiders and external assisters, and the role of teachers as change-initiators are all in order.

## Conclusions: A Suggested Research Agenda

The basic mission of this paper was to summarize what seems to be known about the "common properties" of schools, on an empirical basis, to do some assessment of the explanations offered for the presence of such

properties, and to outline an agenda for future research, both to provide more descriptive data, and to test competing explanations.

Our discussion has been discursive and exploratory; it does not pay to engage in extensive summarization at this point. Table 1 summarizes the main "regularities" noted or claimed for schools, sorted by the nine basic dilemmas of school operation and change, along with explanatory antecedents. It also lists the recommendations for research made for each dilemma. Question marks are appended where doubt or ambiguity seemed present.

Examining this table shows us several things. First, it seems clear that much more directly-descriptive data are needed on matters of the most straightforward sort: the actual instructional modes being used by teachers; their autonomy to make decisions affecting their work; the main types of knowledge people seek inside and outside their local organizations, and from whom/what they seek it; the degree to which such knowledge is actually "utilized" in work; what people in schools use as their practical definitions of goals; how parent influence is exercised; the decisions of administrators and boards, and how far they are constrained by the local community. Though studies exist for some of these questions, in most cases we do not have reliable, carefully-sampled studies that would tell us, simply, what is really going on.

A second comment, echoing that by Berman (1980) is that we need many more contingent analyses, showing, for example, under what contextual conditions active teacher involvement in planning change will be productive; for what sorts of innovations, in what sorts of organizational and community contexts, a "technology transfer" approach will work well or poorly; what aspects of routinization and unifomity in schools are associated with innovativeness; or the differential consequences of externally-mandated change in stable and turbulent environments.

TABLE 1

| DILEMMA | NOTED REGULARITIES | CLAIMED ANTECEDENTS | KNOWLEDGE GAPS |
|---|---|---|---|
| 1. Core task accomplishment vs. survival (pp. 37-46) | Goal conflict?<br>Goal displacement?<br>Input focus<br>Symbolic/ceremonial success criteria | Goal measurement difficulty<br>Value-laden goals<br>Compulsory attendance<br>Vulnerability | Causal claims assessment<br>Extent of practical goal consensus<br>Comparative studies of vulnerability |
| 2. Diversity vs. uniformity (pp. 46-60) | Structural supports for uniform treatment<br>Minimal use of learner-responsive technologies<br>Preoccupation with student control<br>Increase in bureaucratization? | Output measurement difficulty<br>Large numbers of clients?<br>Vested interests of employees<br>Immaturity of clients<br>Client motivation weak | Description of actual instructional modes<br>Relation of diversity/uniformity to innovativeness<br>Relation of diversity/uniformity to effectiveness |
| 3. Coordination vs. flexibility (pp. 60-72) | Influence discontinuities<br>Low interdependence<br>Low surveillance<br>Low control? | Legitimacy maintenance<br>Custodial function of schools<br>Domain conflict | Organizational model-fitting<br>Relation of coordination/flexibility to knowledge utilization & innovation<br>Nature of teacher autonomy<br>Meaning of teacher isolation |
| 4. Environmental dependence vs. autonomy (pp. 73-81) | Domestication?<br>Quasi-monopolistic position<br>Popular support<br>Decentralized constraint<br>Increased regulation | Education as a state/local function<br>Compulsory education<br>Normal children as clients<br>Development of the educational establishment | Local "latitude" for action<br>Correlates of school pro-activeness<br>Cognitive mapping of the environment |
| 5. Environmental contact vs. withdrawal (pp. 81-89) | Vulnerability<br>Buffering<br>Weak parent and citizen participation | Avoidance of disruption<br>Weak production function<br>Self-defeating Federal policies<br>Vested interests of educators | Parents' influence at the "micro" level<br>Models of "constructive" involvement |

TABLE 1 (Cont'd)

| DILEMMA | NOTED REGULARITIES | CLAIMED ANTECEDENTS | KNOWLEDGE GAPS |
|---|---|---|---|
| 6. External expertise-seeking vs. self-reliance (pp. 89-96) | Infrequent use of formal external channels<br>Presence of "non-instrumental incentives<br>Quasi-professionalism | Weak knowledge base<br>Structural aspects of teaching<br>Modernity | Knowledge utilization base rates<br>Correlates of utilization |
| 7. Feedback-seeking vs. intuitive/routine action (pp. 96-103) | Labor-intensiveness<br>Immediate client response as data<br>Lack of output control<br>Weak self-monitoring capability | Input variability<br>Goal vagueness<br>Complex operations<br>Weak production function<br>Disconnection of operations and outcomes from rewards | "Alignment" among outcomes, instruction and assessment<br>The educational production function<br>Barriers and aids to the diffusion of self-study technology |
| 8. Centralized vs. shared influence (pp. 103-114) | Low influence by students<br>Zoning of decisions<br>"Local" centralization<br>Increasing teacher power<br>Shared influence as a support for innovation? | Compulsory attendance<br>Managerial professionalization<br>Domain conflict<br>Democratic ideology | Contingency analysis of "participation"<br>Processes and effects of shared-influence structures |
| 9. Change vs. stability (pp. 114-126) | "Non-rationality" toward innovations<br>Local adaptation<br>"Slow" innovation rates?<br>"Weak" internal change capability?<br>Expanding external change resources | Outcome vagueness<br>Weak incentive structure<br>Weak production function<br>Vulnerability<br>Professionalization of reform | Base rates of innovation<br>Limits to "technology transfer"<br>Nature of internal change supports |

Third, it seems quite clear that most of the causal claims asserted (the supposed antecedents of the regularities noted) are almost untested in any empirical sense. If they are to do more than survive as folklore or dubious wisdom, direct inquiry is needed. Two approaches seem workable: comparative analysis, where naturally-occuring variation in supposedly critical antecedent variables can be mapped; and intervention evaluation, where such variables are altered experimentally (as in the case of voucher plans, shifts to team teaching, etc.)

It's of some interest to note that, though the review above was carried out in an essentially exploratory, inductive way, there are several antecedent variables that recur, that are claimed with more or less empirical support to generate regularities in several domains. These include goal vagueness/measurement difficulty; vulnerability; weak production function; inappropriate incentive structures; and compulsory attendance. Furthermore, with the exception of compulsory attendance, all these variables are claimed to be causal for the change vs. stability dilemma. And again with the exception of compulsory attendance (which is probably quite unlikely ever to become undone), all these variables are presumably amenable to empirical study, and even to experimental manipulation. They might well take priority over other inquiry.

Fourth, though Table 1 only suggests it here and there, it would undoubtedly be useful to treat both innovativeness (read "implementation", "deep-rooted adoption", "school improvement", "institutionalization", etc.) and school effectiveness as dependent variables for many or all of the "noted regularities" specified under each dilemma. To take a single example: there are many polemics decrying the well-established fact that students have little power in schools. But can any causal linkages be established between

student influence and the change-relevant capabilities of the school, or its production of learning?

This review has, in effect, been a sort of map-making journey. As in most explorations, there has been much of interest along the way, a certain amount of cognitive overload, and the discovery of new uncertainties. The test of any map is perhaps not so much its micro-level accuracy as its practical usefulness in helping you get where you want to go. So the question is how far the rough mapping offered here, and the reflection it may have stimulated in the reader, can advance our understanding of what is underlying, durable, typical, stable, "essential" in American schools---and thus in our efforts to support them, operate them, study them, and improve them. That, too, is an empirical question.

REFERENCES

Abbott, M.G. Hierarchical impediments to innovation in educational organizations. In M.G. Abbott & J.T. Lovell, (Eds.) Change perspectives in educational administration. Auburn, AL: Auburn University, 1965.

Abramowitz, S., and Tenenbaum, E., with T.E. Deal and E.A. Stackhouse. High School '77: a survey of public secondary school principals. Washington, DC: National Institute of Education, 1978.

Averch, H.A., et al, How effective is schooling? A critical review and synthesis of research findings. Santa Monica, CA: Rand Corporation, 1972.

Baldridge, J.V., Deal, T.E., and Ancell, M.Z. Managing change in educational organizations. Berkeley, CA: McCutchan, 1975.

Bale, R.L. A model of organizational innovation in American elementary schools. Paper read at American Educational Research Association meetings, 1977. ED 137 939.

Bank, A., Snidman, N., and Pitts, M. Evaluation, dissemination and educational improvement: how do they interact? Paper read at AERA meetings, 1979.

Bass, G.V. A study of alternatives in American education. Vol. I: District policies and the implementation of change. Santa Monica, CA: Rand Corporation, 1978. R-2170/1-NIE.

Benson, J.K. Organizations: a dialectical view. Administrative Science Quarterly, 22 (March 1977).

Bentzen, M.M., et al. Changing schools: the magic feather principle. New York: McGraw-Hill, 1974.

Berman, P. The study of macro- and micro-implementation. Public Policy, 26 (2):157-184, 1978.

Berman, P. Toward an implementation paradigm of educational change. Paper prepared for Program on Research and Educational Practice, National Institute of Education, 1980.

Berman, P., and McLaughlin, M.W. Federal programs supporting educational change, Vol. I: A model of educational change. Santa Monica, CA: Rand Corp., 1974. R-1589/1-HEW.

Berman, P., and McLaughlin, M.W. Federal programs supporting educational change, Vol. VIII: Implementing and sustaining innovations. R-1589/8-HEW. Santa Monica, CA: Rand, 1978.

Berman, P. . and McLaughlin, M.W. An exploratory study of school district adaptation. R-2010-NIE. Santa Monica, CA: Rand, 1979.

Bidwell, C. The school as a formal organization. In J.G. March (Ed.) Handbook of organizations. Chicago: Rand McNally, 1965.

Blau, P.M., and Scott, W.R. Formal organizations: a comparative approach. San Francisco: Chandler, 1962.

Blumberg, A. School organizations: a case of generic resistance to change. In M.M.Milstein (Ed.) Schools, conflict and change. New York: Teachers College Press, 1980. Pp. 15-29.

Boyd, W.L. The changing politics of curriculum policy-making for American schools. Review of Educational Research, 48(4):577-628, 1978.

Boyd, W.L. The politics of curriculum change and stability. Educational Researcher, 8 (2):12-18, 1979(a).

Boyd, W.L. Retrenchment in American education: the politics of efficiency. Paper read at American Educational Research Association meetings, 1979(b).

Brickell, H.M. State organization for educational change: study and a proposal. In M.B.Miles (Ed.) Innovation in education. New York: Teachers College Press, 1964. Pp.493-532.

Burcham, D.W. and Cohn, C.A. California educational policy-making by initiative: the specter of unintended outcomes. Politics of Education Bulletin, 9 (1): 8-10, 1979.

Burns, T., and Stalker, G.M. The management of innovation. London: Tavistock Publications, 1961.

Carlson, R.O. Environmental constraints and organizational consequences: the public school and its clients. In D.E. Griffiths (Ed.) Behavioral science and educational administration. 63rd Yearbook, National Society for the Study of Education. Chicago: University of Chicago Press, 1964. Pp. 262-76. (Also reprinted in Baldridge, Deal & Ancell, 1975.)

Carlson, R.O. Barriers to change in public schools. In R.O. Carlson, et al., Change processes in the public schools. Eugene, Oregon: CASEA, 1965.

Cates, C., Malkas, M., Sulkis, B.,& Hood,P.(Eds.)Thestate of the states: report of discussions at the 1978 Dissemination Forum. San Francisco: Far West Laboratory for Educational Research and Development, 1979

Charters, W.W.,Jr. Task interdependence in front line personnel. In A.J.Schwartz (Ed.) Proceedings, Third Annual Conference of the Sociology of Education Association. Berkeley, CA: School of Education, University of California. Pp. 47-63.

Charters, W.W., Jr., and Packard, J.S. Task interdependence, collegial governance, and teacher attitudes in the multiunit elementary school. Eugene, OR: Center for Educational Policy and Management, University of Oregon, 1979.

Clark, P.B. and Wilson, J.Q. Incentive systems: a theory of organizations. Administrative Science Quarterly, 6(2):129-66, 1961.

Coch, L., and French, J.R.P. Overcoming resistance to change. Human Relations, 1: 512-32, 1948.

Cohen, D. Ideas and action: social science and craft in educational practice. Unpublished paper, Graduate School of Education, Harvard University, 1977.

Cohen, E.G., Meyer, J.W., Scott, W.R. and Deal, T.E. Technology and teaming in the elementary school. Sociology of Education, 52(1):20-33, 1979.

Cohen, M.D., March, J.G. and Olsen, J.P. A garbage can model of organizational choice. Administrative Science Quarterly, 17:1-25, 1972.

Corwin, R.G. Professional persons in public organizations. Educational Administration Quarterly, 1:1-22, 1965.

Corwin, R.G. The school as a formal organization. In L.C. Deighton (Ed.) Encyclopedia of Education. New York: Macmillan and Free Press, 1971. Vol. 8.

Corwin, R.G. Innovation in organizations: the case of schools. Sociology of Education, 48:1-37, 1975.

Corwin, R.G. and Edelfelt, R.A. The limits of local control over education. In R.G. Corwin, R.A. Edelfelt, T.E. Andrews and B.L. Bryant (Eds.) Perspectives on organizations: schools in the larger social environment. Washington, DC: American Association of Colleges for Teacher Education, 1978. Pp. 3-36.

Crandall, D.P. The Study of Dissemination Efforts Supporting School Improvement: an overview. Paper read to American Educational Research Association pre-session, 1980.

Cusick, P.A. Inside high school. New York: Holt, Rinehart & Winston, 1973.

Daft, R.L. and Becker, S.W. The innovative organization: innovation adoption in school organizations. New York: Elsevier, 1978.

Dalin, P. and Rust, V. Can schools learn? Oslo: IMTEC, 1979.

Deal, T.E. Linkage and information use in educational organizations. Paper read to American Educational Research Association meetings, 1979.

Deal, T.E., et al. A survey feedback approach to developing self-renewing school organizations. Research and Development Memorandum No. 131. Stanford, CA: Stanford Center for Research and Development on Teaching, 1975. ED 099 389.

Deal, T.E. and Celetti, L.D. "Loose coupling" and the school administrator: some recent research findings. Stanford, CA: School of Education, Stanford University, 1977.

Deal, T.E. and Nutt, S. Promoting, guiding -- and surviving -- change in small school districts. Cambridge, MA: Abt Associates, 1979. Report No. AAI-79-73. NIE Contract 400-78-0034.

DeArman, J.W. Investigation of the abandonment rate and causes of abandonment of innovative practices in secondary schools. Final Report, NIE-G-74-0005. Columbia, MO: University of Missouri, 1975. ED 133 872.

Deutsch, C.P. Presidential message. SPSSI Newsletter (Society for the Psychological Study of Social Issues): 151, 1979.

Downs,G.W., Jr., and Mohr, L.B. Conceptual issues in the study of innovation. Administrative Science Quarterly, 21: 700--714, 1976.

Elboim-Dror, R. Some characteristics of the education policy formation system. Policy Sciences, 1:231-253, 1970.

Elboim-Dror, R. Organizational characteristics of the educational system. Journal of Educational Administration, 9, May 1973.

Emery, F.E. and Trist, E.L. The causal texture of organizational environments. Human Relations, 18:21-32, 1965.

Emrick, J.A. et al. Evaluation of the National Diffusion Network. Vol. I: Findings and recommendations. Menlo Park, CA: Stanford Research Institute, 1977.

Etzioni, A. A comparative analysis of complex organizations. New York: Free Press, 1961.

Farrar, E., DeSanctis, J. and Cohen, D.K. Views from below: implementation research in education. Cambridge, MA: The Huron Institute, 1979.

Firestone, W.A. Images of schools and strategies for change. Philadelphia: Research for Better Schools, Inc., 1978.

Firestone, W.A. and Herriott, W.A. Images of the school: an exploration of the social organization of elementary, junior high and high schools. Philadelphia, PA: Research for Better Schools, 1980.

Fischer, J. (Ed.) The social sciences and the comparative study of educational settings. Scranton, PA. International Textbook Co., 1970.

Freeman, J. Going to the well: school district administrative intensity and environmental constraint. Administrative Science Quarterly, 24: 119-133, 1979.

Fullan, M. The role of human agents internal to school districts in knowledge utilization. Paper prepared for Program on Research and Educational Practice, National Institute of Education, 1980.

Fullan, M. The meaning of educational change. Toronto: Ontario Institute for Studies in Education. In preparation.

Fullan, M., and Pomfret, A. Research on curriculum and instruction implementation. Review of Educational Research, 47 (1): 335-397, 1977.

Gallaher, A. Directed change in formal organizations: the school system. In R.O. Carlson (Ed.) Change processes in the public schools. Eugene, Oregon: CASEA, University of Oregon, 1965.

Gaynor, A.K. Toward a structural theory of innovation in public schools. Paper read to American Educational Research Association meetings, 1979.

Giacquinta, J.B. The process of organizational change in schools. In F.B. Kerlinger (Ed.) Review of research in education. Itasca, IL: F.E. Peacock, 1973. Pp. 178-208.

Giacquinta, J.B. Status risk-taking: a central issue in the initiation and implementation of public school innovation. Journal of Research and Development in Education, 9, 1, 102-14, 1975.

Giacquinta, J.B. and Kazlow, C. The growth and decline of public school innovations: an analysis of the open classroom. Paper read at American Educational Research Association meetings, 1979.

Gittell, M., with Hoffacker, B., Rollins, E., and Foster, S. Citizen organizations: citizen participation in educational decisionmaking. Boston, MA: Institute for Responsive Education, 1979.

Glass, G.V., and Smith, M.L. Meta-analysis of research on class size and achievement. Educational Evaluation and Policy Analysis, 1 (1): 2-16, 1979.

Goffman, E. Asylums. Chicago: Aldine, 1961.

Gold, B.A., and Miles, M.B. Change and conflict: educational innovation in community context. In M.B.Miles, E.W.Sullivan, B.A.Gold, B.L.Taylor, S.D. Sieber and D.E. Wilder, Final Report, Grant NIE-G-74-0051. Designing and Starting Innovative Schools: a Field Study of Social Architecture in Education, Part III, Ch. 7. New York: Center for Policy Research, 1978. ED170 831.

Goodstein, L. Organization development in bureaucracies: some caveats and cautions. In W.W. Burke (Ed.) The cutting edge: current theory and practice in organization development. LaJolla: University Associates, 1978. Pp. 47-59.

Guba, E.G. and Clark D.L. The configurational perspective: a new view of educational knowledge production and utilization. Educational Researcher, 4(4)6-9, April 1975.

Halperin, S. The educational arena. Educational Evaluation and Policy Analysis, 2 (1): 27-36, 1980.

Hanson, E.M. The modern educational bureaucracy and the process of change. Educational Administration Quarterly, 11(3):21-36, 1975.

Hanson, E.M. Organizational control in educational systems: a case study of governance in schools. Paper read at American Educational Research Association meeting, 1978. ED 150 723.

Havelock, R.G. & Havelock, M.C., with Markowitz, E.A. Educational innovation in the United States. Vol. I: The national survey: the substance and the process. Ann Arbor, MI: Center for Research on Utilization of Scientific Knowledge, University of Michigan, 1973. Contract OEG-0-70-4296 (508).

Havelock, R.G., and Huberman, A.M. Solving educational problems: the theory and reality of innovation in developing countries. New York: Praeger, 1978.

Hawley, W.D. Dealing with organizational rigidity in public schools: a theoretical perspective. In Wirt, F.M. (Ed.) The polity and the school: political perspectives in education. Lexington, MA: D.C. Heath, 1975.

Hawley, W.D. Horses before carts: developing adaptive schools and the limits of innovation. In S. Gove and F.M. Wirt Political science and school politics. Lexington, MA: DC Heath, 1976. (Also in D. Mann (Ed.) Making change happen? New York: Teachers College Press, 1978.)

Herriott, R.E. Federal initiatives and rural school improvement. Report No. AAI-79-72, NIE Contract No. 400-78-0034. Cambridge: Abt Associates, 1979.

Herskovitz, M.J. Cultural anthropology. New York: Knopf, 1963.

Hood, P.D. (Ed.) New perspectives on planning, management and evaluation in school improvement: a report on the 1979 Far West Laboratory summer workshop on educational dissemination and school improvement. San Francisco: Far West Laboratory for Educational Research and Development, 1979.

Hood, P.D., & Blackwell, L.R. Study of information requirements in education: Vol. I, Key educational information users and their styles of information use. Santa Monica, CA: System Development Corp., 1976. NIE Contract NIE-C-74-0099. ED 135 411.

Hood, P.D., Mick, C., and Katter, R.V. Study of information requirements in education, Vol. II: A mail survey of user information requirements. Santa Monica, CA: System Development Corp., 1976. NIE Contract NIE-C-74-0099. ED 135 411.

House, E. Transferability and equity in innovation policy. Paper read at National Conference on Innovation and Change, Detroit, Mich. 1975. Urbana, IL: CIRCE, 1975.

House, E. Three perspectives on innovation: the technological, the political, and the cultural. Paper prepared for Program on Research and Educational Practice, National Institute of Education, 1980.

Huguenin, K., Zerchykov, R. , and Davies, D. Narrowing the gap between intent and practice: a report to policymakers on community organizations and school decisionmaking. Boston, MA: Institute for Responsive Education, 1979.

Intili, J.K. and Deal, T.E. The labyrinths of diagnostic-prescriptive instruction. Stanford, CA: School of Education, Stanford University, 1977.

Jurkovich, R. A core typology of organization environments. Administrative Science Quarterly, 19(3):380-94, 1974.

Katz, D. and Kahn, R. The social psychology of organizations. New York: Wiley, 1966.

Katz, M.B. Class, bureaucracy and schools: the illusion of educational change in America. (Expanded ed.) New York: Praeger, 1975.

Kelly, D.C. The effects of curriculum organizational structure on curriculum innovation. Paper read at American Educational Research Association meetings, 1977. ED 137 941.

Kerr, N.D. The school board as an agency of legitimation. Sociology of Education, 38: 34-59, 1964.

King, E.J. Other schools and ours: a comparative study for today. (3d ed.) New York: Holt, Rinehart & Winston, 1979.

Kirst, M.W. Interview. Educational Evaluation and Policy Analysis, 2 (1): 77-83, 1980.

Kouzes, J.M. and Mico, P.R. Domain theory: an introduction to organizational behavior in human service organizations. Journal of Applied Behavioral Science, 15 (4):449-469, 1979.

Lieberman, A. Political and economic stress and the social reality of schools. Teachers College Record, 79(2):259-267 ,1977.

Lieberman, A. and Miller, L. The social realities of teaching. In A. Lieberman and L. Miller (Eds.) Staff development: new demands, new realities, new perspectives. New York: Teachers College Press, 1979. Pp. 54-68.

Lortie, D.C. Schoolteacher: a sociological study. Chicago: University of Chicago Press, 1975.

Lortie, D.C. An exploration of urban school structure and teacher professionalism. Chicago: Center for New Schools, 1977(a).

Lortie, D.C. Two anomalies and three perspectives: some observations on school organization. In R.G. Corwin, R.A. Edelfelt, T.E. Andrews and B.L. Bryant (Eds.) Perspectives on organizations: the school as a social organization. Washington, DC: American Association of Colleges for Teacher Education, 1977(b). Pp. 20-38.

Louis, K.S. Products and process: some preliminary findings from the R&D Utilization Program and their implications for Federal dissemination policies. Paper read to American Educational Research Association meetings, 1980. (a)

Louis, K.S. The role of external agents in knowledge utilization, problem solving and implementation of new programs in local school contexts. Paper prepared for Program on Research and Educational Practice, National Institute of Education, 1980. (b)

Madey, D.L., Royster, E.C., Decad, J.K., Baker, R.F., and Strang, E.W. Building capacity for improvement of educational practice: an evaluation of NIE's state dissemination grants program. Durham, NC: NTS Research Corp., 1979.

Mann, D. The politics of training teachers in schools. In D. Mann (Ed.) Making change happen? New York: Teachers College Press, 1978. Pp.3--18.

McGregor, D.M. The human side of enterprise. New York: McGraw-Hill, 1960.

Meyer, J., and Cohen, E. The impact of the open-space school upon teacher influence and autonomy: the effects of an organizational innovation. Technical Report 21. Stanford, CA: Stanford Center for Research and Development in Teaching, 1971.

Meyer, J.W. and Rowan, B. Institutionalized organizations: formal structure as myth and ceremony. American Journal of Sociology, 83(2):340-63, 1977.

Meyer, J.W. and Rowan, B. The structure of educational organizations. In M.W. Meyer and associates (Eds.) Environments and organizations. San Francisco: Jossey-Bass, 1978. Pp. 78-107.

Meyer, J.W., Scott, W.R., Cole, S., and Intili, J.K. Instructional dissensus and institutional consensus in schools. In M.W. Meyer, et al. (Eds.) Environments and organizations. San Francisco: Jossey-Bass, 1978. Ch. 9, pp. 233-263.

Michaelson, J.R. Revision, bureaucracy, and school reform: a critique of Katz. School Review 85 (2): 229-245, 1977.

Miles, M.B. Planned change and organizational health: figure and ground. In R.O. Carlson, et al., Change processes in the public schools. Eugene, OR: Center for the Advanced Study of Educational Administration, University of Oregon, 1965. Pp. 11-36.

Miles, M.B. Some properties of schools as social systems. In G. Watson (Ed.) Change in school systems. Washington, DC: National Training Laboratories, NEA, 1967.

Miles, M.B. A matter of linkage: how can innovation research and innovation practice influence each other? In S.V.Temkin & M.V. Brown (Eds.) What do research findings say about getting innovations into schools: a symposium. Philadelphia: Research for Better Schools, 1974. Pp. 199-216.

Miles, M.B. On networking. Washington: National Institute of Education, 1978(a).

Miles, M.B. Planning and implementing new schools: a conceptual framework. In M.B. Miles, E.W. Sullivan, B.A. Gold, B.L. Taylor, S.D. Sieber and D.E. Wilder. Final Report, Grant NIE-G-74-0051. Designing and Starting Innovative Schools: a Field Study of Social Architecture in Education. Part I, Ch. 3. New York: Center for Policy Research, 1978(b). ED 170 828.

Miles, M.B. Westgate schools. In M.B.Miles, E.W.Sullivan, B.A.Gold, B.L.Taylor, S.D.Sieber & D.E. Wilder, Final Report, NIE Grant NIE-G-74-0051. Designing and Starting Innovative Schools. a Field Study of Social Architecture in Education, Part III, Chapter 6. New York: Center for Policy Research, 1978 (c) ED 170 830.

Miles, M.B., Calder, P.H., Hornstein, H.A., Callahan, D.M., and Schiavo, R.S. Data feedback and organizational change in a school system. Paper read to American Sociological Association meetings, 1966. Excerpted in W.G.Bennis, K.D.Benne, and R. Chin (Eds.) The planning of change (rev. ed.) New York: Holt, Rinehart and Winston, 1969. Pp. 457-67.

Miles, M.B., Fullan, M., and Taylor, G. Organization development in schools: the state of the art. Vol. III: OD consultants/OD programs in school districts. Vol. V: Implications for policy, research and practice. Final Report, NIE Contracts 400-77-0051, 0052. New York: Center for Policy Research; Toronto: Ontario Institute for Studies in Education, 1978.

Miles, M.B. and Schmuck, R.A. Improving schools through organization development: an overview. In R.A. Schmuck & M.B. Miles (Eds.) Organization development in schools. La Jolla: University Associates, 1971. Pp. 1-27.

Miskel, C. Demographic characteristics, faculty attitudes and school structure. Paper read at American Educational Research Association meeting, 1979.

Morrish, I. Aspects of educational change. New York: Halsted, 1976.

Niedermeyer, F.C. A model for the implementation of outcomes-based instructional products. Paper read at American Educational Research Association meetings, 1979.

Noah, H.J., and Eckstein, M.A. Toward a science of comparative education. New York: Macmillan, 1969.

Packard, J.S. Schools as work organizations. Paper read to Symposium on Organizational Characteristics of Schools, University of California at Santa Barbara, Feb. 10, 1977. Eugene, OR: Center for Educational Policy and Management, University of Oregon, 1977.

Packard, J.S., Charters, W.W., Jr., and Duckworth, K.E., with Jovick. T.D. Management implications of team teaching: Final Report. Eugene, OR: Center of Educational Policy and Management, University of Oregon, 1978.

Parsons, T. An outline of the social system. In T. Parsons (Ed.) Theories of society. New York: Free Press, 1965. Pp. 30-79.

Paul, D.A. Change processes at the elementary, secondary and post-secondary levels of education. In Nash, N., and Culbertson, J. Linking processes in educational improvement. Columbus, OH: University Council for Educational Administration, 1978.

Pauly, E. The decision to innovate: career pursuit as an incentive for educational change. In D. Mann (Ed.) Making change happen? New York: Teachers College Press, 1978. Ch. 12, pp. 261-284.

Pellegrin, R. J. Schools as work settings. In R. Dubin (Ed.) Handbook of work, organization and society. Chicago: Rand McNally, 1976.

Pincus, J. Incentives for innovation in the public schools. Review of Educational Research, 44:113-144, 1974.

Riecken, H.W., and Homans, G.C. Psychological aspects of social structure. In G. Lindzey (Ed.) Handbook of social psychology. Cambridge: Addison-Wesley, 1954. Pp.786--829.

Rosenblum, S. & Louis, K.S. Stability and change: innovation in an educational context. Cambridge, MA: Abt, 1979.

Rubin, L. The in-service education of teachers. Boston: Allyn and Bacon, 1971.

Rutter, M., Maugham, B. Mortimer, P., Ouston, J. with Smith, A. Fifteen thousand hours: secondary schools and their effects on children. Cambridge, MA: Harvard University Press, 1979.

Sarason, S.B. The culture of the school and the problem of change. Boston: Allyn & Bacon, 1971.

Schaffarzick, J. The consideration of curriculum change as the local level. Ph.D. dissertation, Stanford University, 1975.

Schmuck, R.A., Runkel, P.J., Arends, J.M. and Arends, R.I. The second handbook of OD in schools. Palo Alto, CA: Mayfield Press, 1977.

Sieber, S.D. Organizational influences on innovative roles. In T.L. Eidell and J.M. Kitchel (Eds.) Knowledge production and utilization in educational administration. Eugene, Oregon: CASEA, 1968. Pp. 120-142.

Sieber, S.D. Innovation and educational finance. Educational Technology, January 1977. Pp. 34-38.

Sieber, S.D. Incentives and disincentives for knowledge utilization in public education. Paper prepared for Program on Research and Educational Practice, National Institute of Education, 1980.

Sieber, S.D., Louis, K.S., and Metzger, L. The use of educational knowledge, Vols. I and II. New York: Bureau of Applied Social Research, Columbia University, 1972.

Silverman, D. The theory of organizations. New York: Basic Books, 1971.

Spence, L.D., Takei, Y. and Sim, F.M. Conceptualizing loose coupling: believing is seeing or the garbage can as myth and ceremony. Paper read to American Sociological Association meeting, 1978.

Spuck, D.W. Reward structures in the public high school. Educational Administration Quarterly, 1974, 10(1):18-34.

Stephens, J.M. The process of schooling. New York: Holt, Rinehart and Winston, 1967.

Teacher Education Reports. Teachers back public schools, but favor changes in programs. 1(15), Aug. 1, 1979.

Thomas, M.A. A study of alternatives in American education. Vol. II: The role of the principal. Santa Monica, CA: Rand Corporation, 1978. R-2170/2-NIE.

Thompson,J.D. Organizations in action. New York: McGraw-Hill, 1967.

Tumin, M. Schools as social organizations. In R.G.Corwin, R.A. Edelfelt, T.E. Andrews and B.L.Bryant (Eds.) Perspectives on organizations: the school as a social organization. Washington: American Association of Colleges for Teacher Education, and Association of Teacher Educators, 1977. Pp.39-57.

Tyler, R.W. and White, S.H. (Chairmen) Testing, teaching and learning: report of a conference on research on testing. Washington: National Institute of Education, 1979.

Waller, W. The sociology of teaching. New York: John Wiley, 1932.

Watkins,M.H. The West African 'bush' school. American Journal of Sociology, 48: 666-74, 1943.

Wayland, S. Structural features of American education as basic factors in innovation. In M.B. Miles (Ed.) Innovation in education. New York: Teachers College Press, 1964.

Weber, M. The theory of social and economic organization. New York: Free Press, 1964.

Weick, K.E. Educational organizations as loosely coupled systems. Administrative Science Quarterly, 21:1-19, 1976.

Weick, K.E. Loosely coupled systems: relaxed meanings and thick interpretations. Paper read at American Educational Research Association meetings, 1980.

Weisbord, M. Input- versus output-focused organizations: notes on a contingency theory of practice. In W.W. Burke (Ed.) The cutting edge: current theory and practice in organization development. La Jolla, CA: University Associates, 1978. Pp. 13-26.

Wheeler, S. The structure of formally organized socialization settings. In O.G.Brim and S. Wheeler, Socialization after childhood: two essays. New York: Wiley, 1966. Pp. 53-116.

Wise, A.E. The hyper-rationalization of American education. New York University Education Quarterly, 8(4), 2-6, 1977.

Willower, D.J. Educational change and functional equivalents. Education and Urban Society, 2, August 1970.

Willower, D.J. Social control in schools. In L.C. Deighton, Encyclopedia or Education. New York: Macmillan and Free Press, 1971. Vol. 8.

Willower, D.J. Schools, values and educational inquiry. Educational Administration Quarterly, 9, Spring, 1973.

Willower, D.J. Ideology and science in organization theory. Paper read at American Educational Research Association meetings, 1979.

Willower, D.J. Some issues in research on school organizations. Paper prepared for UCEA Seminar on Research in Educational Administration, University of Rochester, 1977. (Also in Immegart, G.L. and Boyd, W.L. Currents in administrative research: problem finding in education. Lexington, MA: D.C. Heath (forthcoming).)

Woodward, J. Management and technology. London: Her Majesty's Stationery Office, 1958.